

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA



General Manager's Monthly Activity Report for November 2016

November 30, 2016

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.

System Maintenance

Staff performed semiannual maintenance on the Lake Mathews headworks Howell-Bunger fixed cone valves. The fixed cone valves are used in concert with the Lake Mathews hydroelectric plant to control the water flow from Lake Mathews into the forebay for the Upper and Lower Feeders. *See photo below.*



Preventive maintenance on the Lake Mathews headworks fixed-cone valves.

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CORE

BUSINESS PROCESSES

Advance continuous business process improvements to improve effectiveness and efficiency while striving for innovation, flexibility, and integration with technology

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

Mobile Technology—Staff has completed the first mobile-accessible eform. Eform Management has created a Leave Request eform that is accessible by desktop and available for approval by management on their mobile device. Administrative Services staff is testing the eform with specific organizations and anticipates a full rollout later this year.

Simplify access to business information.

Administrative Process and Procedure—Staff has developed a prototype dashboard for the Business Resource Center. This tool will increase efficiency for staff to locate pertinent information to better support inquiries from the public and internal staff.

Continue innovative sustainability efforts in business practices including, Spring Green Expo, Our Legacy Newsletter, the rideshare program, energy conservation, and recycling efforts.

Our Legacy e-Newsletter—The first quarter Newsletter was distributed to employees, which highlighted a brand new bike-sharing program in the Los Angeles area coordinated by Metro.

10th Annual Spring Green Expo and ECO Innovators Showcase—The Spring Green Project Team has partnered with External Affairs to reach out to Los Angeles Cleantech Incubator, whose program is to identify, nurture and help businesses grow into a green economy. This is an opportunity for the Project Team to gather innovative ideas to plan for the 10th Annual Spring Green Expo and ECO Innovators Showcase on April 20, 2017.

STRATEGIC PRIORITY

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—In late October 2016, the Public Policy Institute of California (PPIC) released policy reports focused on water infrastructure and deliveries in California. The reports were released at their Policy Priorities for California's Water Conference in Sacramento. The PPIC and its Water Policy Center conducts nonpartisan independent research with a focus on the economy, environment, and society. The full PPIC report can be found at http://www.ppic.org/content/pubs/report/R_1016WPCBKR.pdf. The report found that the reliability of Delta water supplies is decreasing as the risk of levee failure increases and conflicts intensify over flows required to protect endangered species. Further, it states that the California WaterFix, together with California EcoRestore, is likely to improve water supply reliability. The report also found that Delta water supplies will require major new investments to remain reliable, and that significantly expanding groundwater storage in the southern half of California (where basins are most depleted) will be difficult without investments to improve the reliability of water conveyance across the Sacramento–San Joaquin Delta.

The California Department of Water Resources and the U.S. Bureau of Reclamation continue to develop the documents required to complete the California WaterFix environmental review process under the California Environmental Quality Act and National Environmental Policy Act.

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.

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 continued work on the development of Delta Smelt Resiliency Strategy actions. Staff is coordinating with other public water agency staff and DWR to actively engage in developing studies and monitoring plans for actions outlined in the Delta Smelt Resiliency Strategy. Early efforts are focused on the North Delta foodweb adaptive management projects, outflow augmentation action, Suisun Marsh Salinity Control Gate reoperation, Franks Tract restoration feasibility, and Roaring River redistribution system.

Staff has obtained permits and access for conducting a Salmon Predation study. Predation enclosures and equipment are being built and tested on Little Holland Tract as part of the pilot study to understand fish movement.

BAY-DELTA SOLUTIONS continued....

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 (SWRCB)

In November, the California WaterFix Petition hearings before the State Water Resources Control Board continued. Part 1 of the hearings addresses the effects of the project on legal users of water. The first segment (Part 1A), the presentation of the project by DWR and USBR, finished in late September 2016. The second segment (Part 1B), presentation of evidence by project opponents, began in late October 2016 and continued this month. DWR and USBR cross-examined the evidence presented by the project opponents. Metropolitan is participating in the hearings in collaboration with other public water agencies. Part 2 of the hearings, which is scheduled to begin no sooner than February 2017, will consider the effects of the project on fish and wildlife and review “appropriate flow” criteria.

Staff continues to review draft environmental documents released by the SWRCB in September 2016 pertaining to Phase 1 of the Bay-Delta Water Quality Control Plan (WQCP) update process. The Phase 1 update of the Bay-Delta WQCP addresses requirements for salinity in the southern Delta and San Joaquin River flows. Written comments on the Phase 1 document are due in mid-January 2017. Staff is also reviewing a draft technical document, Working Draft Scientific Basis Report Supporting Potential Changes to the Bay-Delta Plan, pertaining to Phase 2 of the WQCP update process. Phase 2 will address other comprehensive changes to the WQCP, such as requirements for Delta outflows, Sacramento River flows, and interior Delta operations. Written comments on the draft technical document are due mid-December 2016.

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.

The third meeting of the Treatment Fixed Charge Workgroup was held on October 20, 2016, as reported to the Finance and Insurance Committee on November 7, 2016. A fourth meeting was held on November 15.

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

The Risk Management Unit completed 40 incident reports communicating instances of Metropolitan property damage, liability, workplace injuries, regulatory visits and spills.

Risk Management completed 66 risk assessments on contracts, including professional service agreements, construction contracts, entry permits, special events and film permits.

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.

- Planning and exercise documentation continued for a Business Recovery Exercise for the week of December 4.
- Completed a reassessment of Mission Essential Applications with Information Technology to help determine the scope of the exercise and assist IT in identifying requirements for the IT Disaster Recovery Program.
- Completed four outstanding BC Plans bringing resulting in a total of 81 BC Plans covering 169 business processes across Metropolitan.

GM PRIORITY

EMPLOYEE DEVELOPMENT

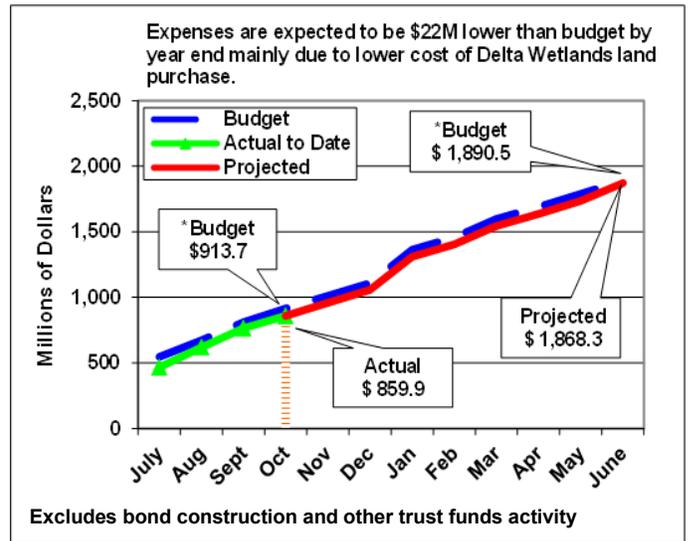
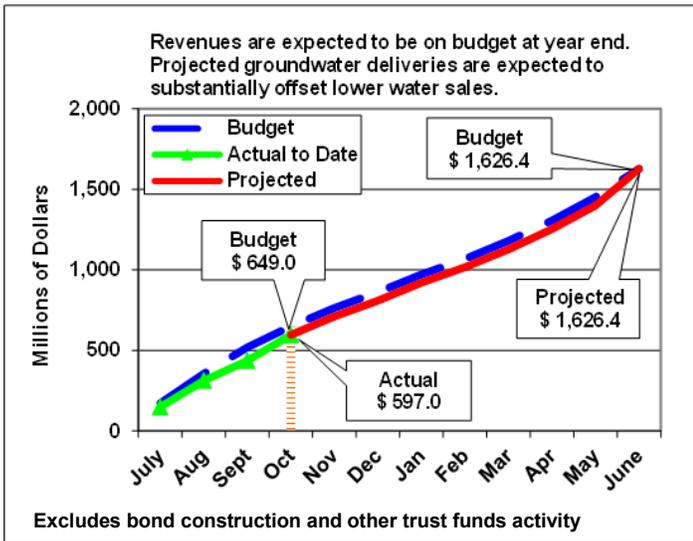
Of significance to the Office of the CFO, a focus on increased planning, management, employee cross-training, and employee development efforts will be needed to meet the challenge of increased retirements brought about by an aging workforce and to ensure continuity of services.

Manage succession planning in preparation for anticipated retirements.

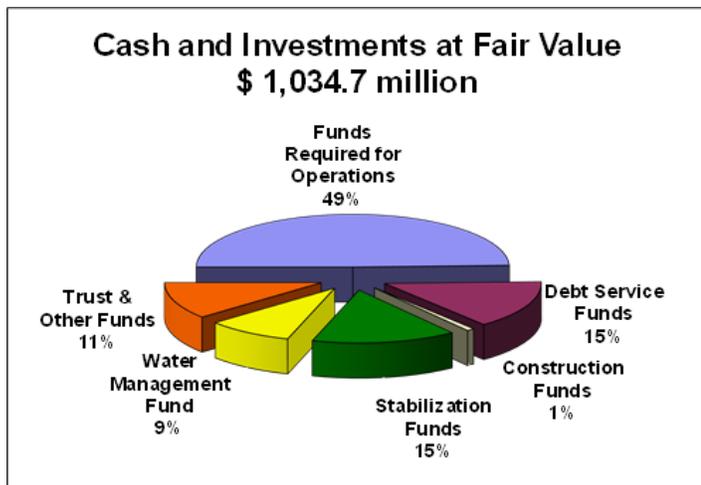
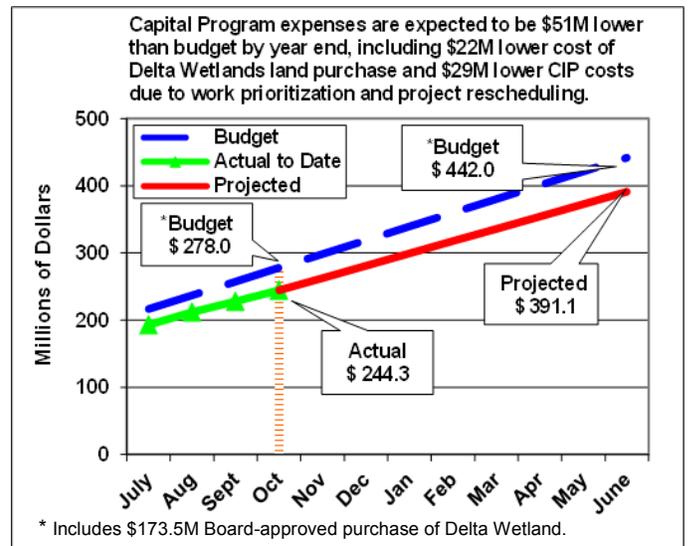
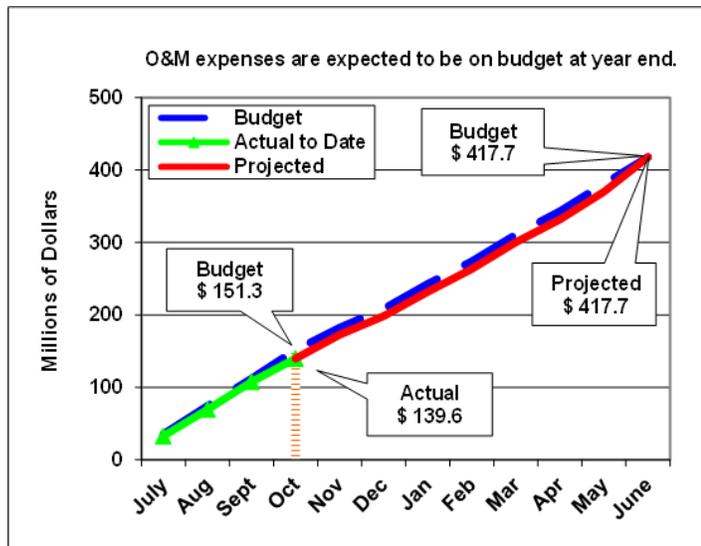
Completed interviews with candidates to fill the Business Continuity Program Manager position upon his planned retirement at the end of 2016 to ensure a smooth transition and no interruption in the ongoing refinement of the Business Continuity Program.

CHIEF FINANCIAL OFFICER

FINANCIAL SUMMARY AS OF October 31, 2016



* Includes \$173.5M Board-approved purchase of Delta Wetland.



Summary Financial Statistics

	Target	Year-End Projected
Fixed Charge Coverage	≥ 1.20 x	1.27%
Revenue Debt Service Coverage	> 2.00 x	1.55%
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:

- 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 is 60 percent complete and is scheduled to be complete by March 2017. Design of the Stage 3 repairs is 95 percent complete and is scheduled to be complete by January 2017.
- Sepulveda Canyon Control Facility Bypass – This project enhances the operational reliability of the Sepulveda Feeder by adding a bypass to the Sepulveda Canyon Control Facility, which will maintain deliveries from the Jensen plant into the Central Pool when the control facility is out of service. Preliminary design is 42 percent complete and is scheduled to be complete by December 2017.
- Lake Mathews Hydroelectric Plant Repairs – This project replaces spalled concrete and corroded steel reinforcement at the Lake Mathews Hydroelectric Plant. Design is complete and a request to the Board for award of a construction contract is planned for February 2017.
- Venice Power Plant Discharge Elimination – This project constructed a permanent discharge connection from an existing sump to the sanitary sewer. Construction was completed in November 2016.
- DVL East Dam Electrical Upgrades – This project provides permanent electrical service to the seepage monitoring structures at the DVL East Dam and to the East Marina area. This project will connect to a new 12kV electrical service owned by S. C. Edison. Construction is 32 percent complete and is scheduled to be complete by August 2017. (*see photos below*)



DVL East Dam Electrical Upgrades – Excavation for electrical duct bank.



DVL East Dam Electrical Upgrades – Edison crew setting a new power line pole.

INFRASTRUCTURE RELIABILITY continued...

Right-of-Way and Infrastructure Protection Program

This program performs needed site improvements within 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. Recent activities include the following:

- Orange County Operating Region – Final design of improvements for the Orange County region is 95 percent complete and is scheduled to be completed by February 2017.
- Western San Bernardino County Operating Region – Final design of improvements for the Western San Bernardino County region is 70 percent complete and is scheduled to be complete by May 2017. The draft programmatic environmental impact report for this region is expected to be released for public review and comment by February 2017.
- Los Angeles County Operating Region – Preliminary design of improvements is 90 percent complete and is scheduled to be complete by December 2016.
- Riverside/San Diego County Operating Region – Preliminary design of improvements is 95 percent complete and is scheduled to be complete by January 2017.

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 53 percent complete and is scheduled to be complete by early 2017. Final design of the first pipeline rehabilitation package is 25 percent complete and is scheduled to be complete by August 2017.
- Programmatic EIR – The draft programmatic EIR was released for public review in September 2016. The 45-day public review period ended on October 17, 2016. Certification by Metropolitan's Board is scheduled for January 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 Rialto Pipeline and Second Lower Feeder were completed in November 2016.

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 38 percent complete. The upgrades are scheduled to be complete by May 2018.
- Main ORP Facilities – Construction of the ozonation system is 99 percent complete and is scheduled to be complete by early 2017. A request to the Board to authorize completion activities for the ORP is planned for December.

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 91 percent complete and is scheduled to be complete by April 2017.
- Industrial Wastewater Handling Improvements – This project adds three wastewater storage tanks and a force main connection to the municipal sewer system to enable safer and more efficient handling of the wastewater and to reduce the risk of an accidental release. Construction is 93 percent complete and is anticipated to be complete by December 2016.

Diemer Plant

- East Filter Upgrades – This project upgrades the Diemer plant's east filters, including replacement of 127 deteriorated valves with new AWWA-standard valves and seismic strengthening of the filter buildings. Construction is 98 percent complete and is scheduled to be complete by December 2016.
- East Basin Rehabilitation – This project rehabilitates aging mechanical equipment and the electrical and structural components within the east flocculation/sedimentation basins. Construction is 50 percent complete and is scheduled to be complete by July 2017. *(see photos page 10)*
- Electrical Upgrades, Stage 2 – This project replaces aging electrical equipment, provides redundant power sources for critical treatment processes and chemical feed systems, and redistributes power loads. Construction is 95 percent complete and is scheduled to be complete by December 2016.

Jensen Plant

- Module No. 1 Filter Valve Replacement – This project replaces 78 deteriorated filter valves within Module No. 1 with new AWWA-standard valves. Construction is 96 percent complete and is scheduled to be complete by December 2016.
- LADWP Lagoon Refurbishment – This project rehabilitates four Los Angeles Department of Water and Power lagoons, which will be used for a period of 50 years by Metropolitan. Construction is 89 percent complete and is scheduled to be complete by April 2017.
- 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 54 percent complete and is scheduled to be complete by February 2019. *(see photo page 10)*

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 67 percent complete and is scheduled to be complete by December 2017. *(See photo page 10)*

INFRASTRUCTURE RELIABILITY continued...



Weymouth Filter Rehabilitation - Concrete gullet wall repairs



Diemer East Basin Rehabilitation



Diemer East Basin Rehabilitation – Flocculation basins



Jensen Electrical Upgrades, Stage 1 – Installation of precast manhole

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:

- CRA Auxiliary Power – This project replaces the auxiliary power system at each CRA pumping plant. These systems provide electricity that powers critical support systems for the CRA main pumps. Preliminary investigations are 20 percent complete and are scheduled to be complete by July 2017.
- Sand Trap Rehabilitation – This project replaces deteriorated sand trap equipment located upstream of the Iron Mountain, Eagle Mountain, and Hinds Pumping Plants. Construction is 55 percent complete and is scheduled to be complete by August 2017.
- Expansion Joint Repair – This project repairs 16 expansion joints located on the pump delivery lines at the CRA pumping plants. Repairs will be completed in two stages. The initial stage addressed three expansion joints and was completed in February 2016. The second stage will repair the remaining 13 joints. A request to the Board for award of a construction contract for Stage 2 is planned for January 2017.
- 6.9 kV Switch House Building Seismic Upgrades – This project performs structural upgrades to the 6.9 kV switch houses at each CRA pumping plant. A construction contract was awarded in November 2016.

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 4 percent complete and is scheduled to be complete by August 2017.

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.

- Chairman Record hosted a Metropolitan-led informational tour of Diamond Valley Lake for members of the Riverside County Grand Jury. The participants had general interest questions in water supply conditions, water conservation, and Metropolitan operations and facilities. (November 10)
- General Manager Kightlinger was the keynote speaker at the opening session of the National Water Resources Association in San Diego and spoke to approximately 200 attendees representing water agencies from across the country about water supply conditions and opportunities to collaborate and effectively address current and future water resource and environmental challenges. (November 14)
(See photo page 13)
- Directors Morris, Murray, Lefevre, Kurtz, Dake and Peterson attended and General Manager Kightlinger spoke at the Coro Southern California “Innovate x Water” Summit held at Los Angeles Cleantech Incubator. The event, which was sponsored by Metropolitan, featured appearances by California Treasurer John Chiang and former Mayor Antonio Villaraigosa, and panels on water innovation and conservation. External Affairs Group Manager Sims participated in a panel discussion *What’s Working: Is Our Messaging Shifting Public Awareness and Behavior?* (November 15)
- General Manager Kightlinger spoke and staff attended the Los Angeles Area Chamber of Commerce Annual State of Infrastructure workshop of private and public sector leaders to discuss infrastructure assets and investments in water, transportation, energy, housing and other construction projects. (November 15)
- Metropolitan hosted the National Water Research Institute’s Southern California Salinity Management Summit at its Headquarters building. The Summit provided a forum for water and wastewater agencies in Southern California to share current practices for managing salinity in the water supply and to discuss how drought has affected water quality and future planning. (November 17)
- Arranged live interview with water resources engineer Polyzos and KNX radio for a story about how drought continues to impact Southern California water supplies and the importance of ongoing water conservation.
- Set up interview with Water Resources Group Manager Upadhyay and Palomar College television documentary producer to discuss drought and water management in Southern California.
- Provided information to Associated Press about the importance of continued water conservation to help preserve the region’s water supplies.

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 submitted written testimony to the Little Hoover Commission outlining actions taken over the past decade to respond to known and potential climate change impacts in the planning and environmental review of water supply and infrastructure projects. The Commission is considering the role of special districts in governing, investing and adapting to climate change.



General Manager Kightlinger speaking at the NWRA Conference

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

Metropolitan sponsored the Inside Washington Panel at the National Water Resources Association annual conference. The panel discussed key legislative and administrative issues impacting the water industry that are likely to be considered during the upcoming 115th Congress and Metropolitan’s commitment to work with Western state water utilities to promote federal policies favorable to water users throughout the United States. Staff participated in an NWRA Advocacy in Washington, D.C. Panel Discussion featuring D.C. representatives from Colorado, Arizona and California. (November 14–16)

Staff met with representative of the U.S. Department of the Interior and the U.S. Department of the Treasury to advance objectives by Metropolitan and the Coalition to Protect Water Conservation to achieve income tax parity between energy and water conservation rebates. Staff was also invited by federal and state water contractors to participate in meetings with the offices of Senator Feinstein and House Speaker Kevin McCarthy to discuss drought legislation. (November 15-16)

State

The Senate and Assembly Democrats retained their majority status following the November 8 election. Assembly Democrats achieved a two-thirds supermajority. One anticipated area of attention and action in the coming session will be consideration of water financing issues, including a possible “public goods charge” on water. Lawmakers will return to the State Capitol on December 5 to take their oath of office. January 4, 2017, marks the beginning of 2017-18 legislative session.

LEGISLATIVE SERVICES continued...

- California voters narrowly defeated Proposition 53, a measure that would have required statewide voter approval of revenue bonds before bonds could be issued or sold by the state for certain infrastructure projects if the bond amount exceeds \$2 billion.

Local

- Director Gray and staff participated in the United Chambers of Commerce San Fernando Valley Annual Mayor's Luncheon featuring Los Angeles Mayor Garcetti and six members of the City Council. More than 500 business leaders from the San Fernando Valley attended the event. (November 3)
- Staff participated in the Manhattan Beach Chamber of Commerce Annual Economic Forecast and Community Forum. More than 150 local elected officials, community leaders and business owners heard Metropolitan staff discuss statewide issues, the need for water conservation and the status of current water supplies. (November 16)
- Staff participated in Congresswoman Napolitano's SoCal Stormwater Forum. The forum was attended by San Gabriel Valley elected, municipal and water industry leaders from San Dimas to discuss long-term regional supply reliability objectives. The event was sponsored by Metropolitan member agencies Three Valleys and Upper San Gabriel Valley Municipal Water Districts. (November 18)

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.

- Arranged interview with Bay-Delta Initiative Manager Arakawa and Capitol Weekly reporter for a story about California WaterFix and key milestones anticipated in 2017.
- Set up interview with Water Resources Group Manager Upadhyay and San Diego Union-Tribune reporter for a story about the success of Metropolitan's turf rebate program and its impact on long-term water supplies.
- Arranged interview with Water Resources Group Manager Upadhyay and KNX radio reporter for a story gauging the effectiveness of Metropolitan's turf rebate program, including lessons learned for rest of the state.
- Arranged interview with Real Property Group Manager Shraibati and Riverside Press-Enterprise reporter to discuss report by the Diamond Valley Lake ad hoc committee presented to the Hemet City Council.
- Worked on several Public Record Act requests seeking information on several topics ranging from Metropolitan employee salaries and benefits to turf removal rebates.

Press Releases

Issued press release about Metropolitan Board of Directors approving up to \$44 million in financial incentives for water recycling projects in Los Angeles and Riverside counties.

Issued a press advisory about the first Solar Cup 2017 boat-building event held at Three Valleys Municipal Water District headquarters.

MEDIA AND COMMUNICATIONS continued...

Website

Launched a new website portal to access information on Metropolitan's key initiatives. MWDWaterTomorrow.com provides web-based materials and information on California WaterFix, Colorado River, Regional Recycled Water Project, the Integrated Resources Plan, and Innovation and Conservation programs. The link for California WaterFix accesses an online toolkit with downloadable materials including fact sheets, PowerPoint presentations, sample newsletter articles, videos, photographs, maps and logos. Information will continue to be developed and posted to the site for use by Metropolitan staff, member agencies, stakeholders and the public.

Created and launched a completely redesigned and reorganized bewaterwise.com website that is mobile friendly, provides easier access to information and videos, and links to a new interactive Flickr page where the public will also be able to share water-saving design ideas and tips. The current Spanish and Chinese language sites will remain active while the new site is translated in the coming weeks.

Over 55,000 people visited the English, Spanish, and Chinese versions of bewaterwise.com for tips and ideas on how to conserve water.

Video Projects

Created a new animated California WaterFix motion graphic video to provide a short and simple presentation of the proposed project and benefits of a modernized Delta water system for Southern California.

Completed a new informational video of the Sacramento-San Joaquin Delta islands purchased by Metropolitan. The footage was filmed on land with the use of drones, and showcases each island, its location, current uses and future potential opportunities. The video will be shown on inspection trips and posted online.

Online

Paid online search on Google Search and the Google Content Network continued this month. Links to bewaterwise.com appear when keywords such as "water," "California weather," and "water rebates" are searched for by Southern California users.

Digital

Paid advertising placements for radio and print ads have ended but Metropolitan continued its water conservation outreach in November with Turn and H2Love digital ad banners focused on new tips in English, Spanish, Vietnamese, Korean and Chinese.

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 the outreach and presentations at (1) Dare 2B Digital Education conference, (2) Willard Elementary School, (3) 2016 Waterfest Upper San Gabriel, (4) McAuliffe Middle School, and the (5) Thompson Middle School Eco Fair. Education staff helped to provide information about the history of water development in Southern California as part of the *Gift of History* event which draws more than 10,000 third graders from throughout Orange County.

World Water Forum College Grant Program

Education staff conducted site visits to the University of California Los Angeles and California State Polytechnic University Pomona as part of the World Water Forum program. Staff also submitted two semiannual reports to the U.S. Bureau of Reclamation on the administration of two \$100,000 grants for the fourth and fifth cycle of the World Water Forum. The fifth cycle of the World Water Forum is scheduled to commence in the Fall of 2017.

Diamond Valley Lake Education Program

The Visitor Center hosted over 220 visitors and guided 260 visitors to the Viewpoint. Many visitors have praised Metropolitan's addition of the augmented reality sandbox. As part of the ongoing improvements at the Visitor Center, two 14-foot diameter Metropolitan seals (emblem) have been installed on the exterior of the building.

Solar Cup

Metropolitan and Three Valleys Municipal Water District hosted the boat-building workshops for high schools competing in the 2017 Solar Cup competition. (November 5-6) (*see photo page 17*)

Student Art Program

A selection of 36 student art posters have been chosen and will be featured in the *2017 Water is Life* calendar and exhibit tour and will be presented at an event in December. Artwork from previous years are tweeted weekly, featured on Metropolitan's Instagram feed and posted on Metropolitan's bewaterwise.com website as well. (*see photo below*)



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



Solar Cup Workshop

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.

Community Outreach Events

- Sponsored Audubon California annual partnership event and provided information and materials for the conference. (November 4)
- Director Ballin and staff attended, and Metropolitan sponsored, the Mujeres de la Tierra annual event honoring local leaders whose work has benefitted the community. Among the honorees were Maria Mehranian, former member Los Angeles Water Quality Control Board, and William W. Funderburk, Jr., Esq., Commissioner, Department of Water and Power, City of Los Angeles. (November 5)
- Assistant General Manager Zinke spoke on a panel at the South Coast Air Quality Management District’s conference on environmental justice and air pollution. Roughly 200 local community leaders attended the forum to hear about the future of environmental justice related to resource issues. (November 15)
- Director Wunderlich, Assistant General Manager Zinke and staff attended, and Metropolitan sponsored, the Los Angeles Economic Development Corporation’s annual event to honor outstanding achievements in economic leadership and development for the region.

Public Outreach and Member Services

- Metropolitan provided information on the Colorado River Aqueduct and conservation at the Veterans Day event at the General Patton Museum in Indio.
- Staff provided notices to 150 homes within the cities of Rancho Cucamonga and Fontana and worked with residents impacted by the Etiwanda Pipeline Repair Project.
- Metropolitan distributed 500 notices within the cities of Rancho Cucamonga, Upland, Fontana and Claremont for the Rialto Feeder shutdown and inspection.
- Metropolitan delivered 420 notices to homes and businesses in Carson and Torrance for the Second Lower Feeder shutdown and inspection.

Inspection Trips

More than 200 stakeholders participated in inspection trips to learn about the State Water Project and California WaterFix, Bay-Delta issues and the Colorado River.

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.

In November, Metropolitan supported small- and disabled-veteran businesses throughout the region by participating in the following award programs, conferences and events:

- More than 70 members of the National Association of Women Business Owners Orange County Chapter attended a panel presentation, *How to Secure Contracts and Procurement Opportunities with Corporations and Public Agencies*. Staff provided information and coaching on ways to secure bid opportunities. (November 1)
- Exhibited at the National Veteran's Small Business Week Event, hosted by the Small Business Administration, Glendale District office and attended by 150 business owners and veterans. (November 1)
- Participated in the *Entrepreneur Day* conference hosted by the Asian Business Association Los Angeles Chapter and attended by 60 people. Panel topics included *How to do Business with the Government*, *Access to Business Opportunities*, and *Qualifications and Challenges*. (November 10)
- Metropolitan's Innovation and Technology Team continued its support for the innovation and technology community by participating in the Achievement Rewards for College Scientists (ARCS) Scholar Luncheon. The ARCS Foundation has provided nearly 15,000 scholar awards totaling over \$87 million at 54 leading universities. (November 10)
- Director Dick and Business Outreach staff attended the California Disabled Veterans Business Alliance Veteran's Day Breakfast program. The event honors men and women who have recently returned from deployment, disabled veterans, and those who have made significant contributions toward helping our veterans. (November 11)
- Staff participated in the Women's Business Enterprise Council West Los Angeles Forums. The event recognizes supplier diversity

professionals who go above and beyond to educate, mentor and provide opportunity for women business owners. (November 16)

- General Manager Kightlinger welcomed over 180 participants at Metropolitan's Canadian Water Innovation Summit including the Consul General of Canada in Los Angeles and representatives from the Canadian embassy and provinces. The day-long event featured information sharing and networking events with 18 Canadian water technologies and WaterTap, a Canadian incubator and water cluster, to discuss with Metropolitan and member agencies new water technologies and opportunities to collaborate on water management issues, operations and challenges. (November 16)
- Metropolitan organized a Connect2Met event to present public sector contracting opportunities to 200 businesses and leaders primarily from South Los Angeles. The event was hosted by Assembly Member Ridley-Thomas, City of Los Angeles and West Basin Municipal Water District. Director Gray kicked off the event, attended by Assistant General Manager Zinke and staff along with exhibitors from the Department of General Services, Los Angeles International Airport, Los Angeles Unified School District, Metro, United States Citizenship and Immigration, and the Small Business Development Center. (November 17)
- Staff participated in the Women's Business Enterprise Council-West San Diego Forums in which staff discussed certification and bid opportunities with Metropolitan. (November 18)
- Staff attended the American Indian Chamber of Commerce Heritage luncheon in celebration of National Native American Month. The event recognized the contributions of Native Americans and support from corporate sponsors. (November 18)

**STRATEGIC
PRIORITY**

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.

Classes delivered this month includes:

- Workshops in Word, Excel pivot tables, and Adobe Forms
- PowerPoint tips and tricks workshop by iHub staff
- Full-day MS Project and Excel workshops, and
- Speaking with Confidence class

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

During the past month Staffing has filled 26 positions and received 28 new requisitions. Staffing is currently recruiting for 130 positions. Planning has started for the upcoming Apprenticeship recruitment that will take place in the third quarter of this fiscal year.

**HR
PRIORITY**

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.

- Outreach and inclusion efforts included the launching of a new employee resource group Women at Metropolitan as well as participation in Employment Development Department's Veterans Breakfast and Apprenticeship event and the Los Angeles Veterans' Hiring Update and Action Planning Community Leadership forum.
- Staff is working with the Real Property Group to support the Group Manager in transition management efforts.
- Staff is also providing continued facilitation for a Talk Circle that is looking into ways to improve effectiveness in the Real Property Group.

HR PRIORITY

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.

- Conducted Module 2 for the third cohort of 16 managers in Metropolitan Management University, focused on Business Acumen, which covers recruitment and selection, budget management, contracts and procurement, records retention, professional development and guidance on avoiding litigation.
- Two sessions of the *Reasonable Suspicion Training* for managers were held this month.
- Eight managers attended an Institute for Management Studies full-day seminar entitled, *The One-day MBA*.

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.

- Staff partnered with the Ethics Office to deliver role play scenarios as part of the AB 1234 compliance training for the Board of Directors.
- Staff continuing to work with workforce planning and succession management actions in the Water Resource Management Group. .

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 Polices, and Memorandum of Understanding.

Staff attended the annual CalPELRA (California Public Employees Labor Relations Association) conference, which provided legal and administrative updates on various employee issues.

Workers' Compensation/Medical Screening:

- Conducted initial investigations on 22 injury incidents.
- Submitted 12 new claims to Metropolitan's workers' compensation claim administrator.
- Settlements were finalized in 2 claims, and 7 claim files were closed.
- Arranged 8 medical evaluations (DMV, medical surveillance, hearing conservation, etc.).

HUMAN RESOURCES

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.

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

- During the month of November, successor Memorandum of Understanding negotiations continued with employee bargaining units—American Federation of State, County and Municipal Employees, Management and Professional Employees Association and the Supervisors Association.
- Updated Board Executive Secretary job description and started the recruitment process to hire a replacement under the new title of Board Administrator.
- Staff from HR Information Systems finalized an upload process for retirement plan loans that will significantly reduce data entry time and ensure accuracy.
- HRIS staff completed development on a database to track various classification and compensation transactions, provide reports and ensure required deadlines are met.
- Staff began developing a database to assist with COBRA compliance and administration.

INFORMATION TECHNOLOGY

CORE

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.

Upgrade and refurbish Information Technology applications and infrastructure to ensure system reliability and performance levels that meet customer needs.

- Board and Committee Rooms—As part of Metropolitan’s Headquarters Improvement project, staff worked with consultants to prepare the final version of the Engineering Drawings to upgrade audio visual equipment that has reached end of life..
- Data Center Architecture—As part of Metropolitan’s Headquarters Improvement project, the project team presented the final version of the Data Center Assessment report to the Steering committee. The assessment report included information from peer agencies (e.g., Los Angeles Department of Water and Power, and California Department of Water Resources).
- Headquarters Wireless Connectivity—Staff prepared a budget estimate for the cellular signal coverage (Wi-Fi) Infrastructure requirements for the Headquarters building and updated the IT Steering Committee.
- Voice over Internet Protocol Technology—The project team completed the Lake Mathews pilot phone deployment. Next step, staff is preparing for the pilot phone deployment at the Soto Street facility.
- Network Communications Infrastructure—Staff continued to deploy core network switches and routers at various Metropolitan facilities. To date, the project team completed all the Metropolitan’s Headquarters building’s telecommunication rooms.

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 water transportation was acquired from Wanda Beverly Hills Properties, LLC in exchange for quitclaiming Metropolitan's existing easement.
- Staff evaluated the Fine Screening Analysis by Black and Veatch of proposed alignment alternatives for the Regional Recycled Water Supply Program and prepared a study with Real Property Group's recommendation for potential alignments.

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.

An existing Lease to McAnally Enterprises, LLC was amended and assigned to New Lakeview Farms.

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 rising lake elevation continues to allow for full public use of the DVL Marina amenities. Total visitors to the recreation area stayed strong through November. The first seasonal trout plant took place November 15, 2016. In August 2016 the Board authorized amending an existing lease with Urban Park Concessionaires. During November, staff completed the amendment to extend the terms by 24 months and incorporate a four-tiered rent and expense reimbursement structure. The 24-month extension will provide time for Metropolitan to evaluate options for a 20- to 30-year lease in consideration of a capital commitment by the concessionaire with the goal of creating self-sustaining marina recreation.
- Installation of power poles for the DVL East Dam Electrical Upgrades project is 85 percent complete and power is scheduled for completion by July 2017.
- Contract work for the DVL Visitor Center Building #4 Improvements is complete. Metropolitan staff has begun to tie the fire life safety system with the remainder of the campus. Occupancy is expected in early 2017.

Foster staff training and development.

Staff attended Metropolitan-sponsored courses: *Reasonable Suspicion Training*, *Excel 2010: Part 2*, *Excel 2010: Part 3*, *Speaking with Confidence*, *High Rise Safety Training*, and *Agreement Administrator Certification and Assessment Training* and *Marine Recreation Association Educational Conference*.

REAL PROPERTY ACQUISITION, MANAGEMENT AND REVENUE ENHANCEMENT continued...

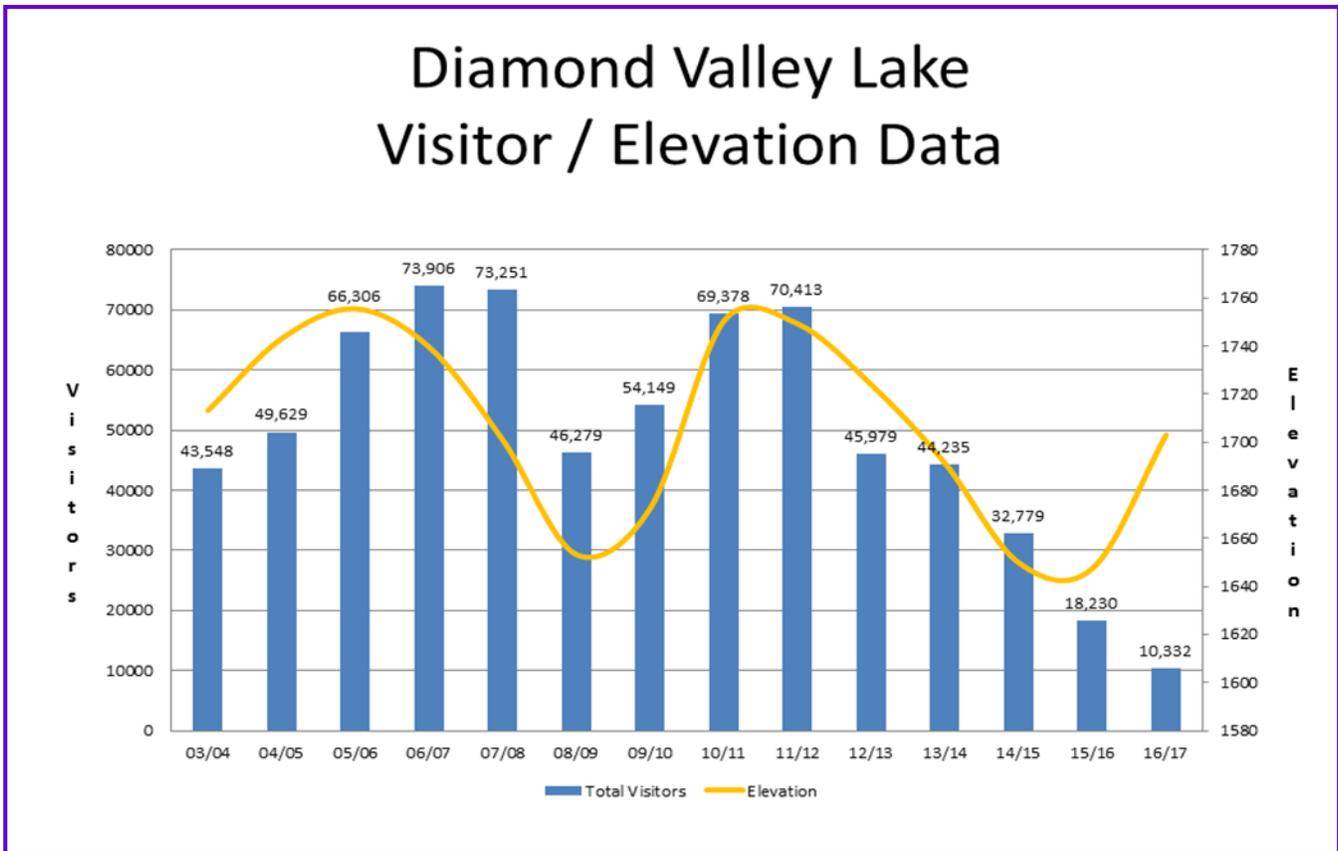
Efficiently maintain and operate Metropolitan’s Headquarters building and the Diamond Valley Lake Visitor Center.

Headquarters Building maintenance highlights and improvements:

- Partnered with Contracting Services to conduct the janitorial services pre-bid meeting.
- Partnered with Headquarters Security on the update of the elevator card readers.

DVL Visitor Center maintenance highlight and improvement:

- Partnered with Construction Services to complete the construction of Building 4.



This graph shows visitor trends with respect to lake elevation on a fiscal year basis since the opening of the Marina. Note that in FY08/09 and FY15/16, access for private boat launching was suspended due to extremely low lake levels. Visitor attendance is expected to increase if the lake levels continue to rise.

*16/17 reflects Visitors thru November 2016 (16/17 projection is 35,000)

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.

Federal Energy Regulatory Commission (FERC) License—Staff participated in site visits and scoping meetings for the relicensing of the southern State Water Project generation facilities with the Federal Energy Regulatory Commission. DWR’s existing South SWP Hydropower FERC license expires on January 31, 2022. The scoping meetings were the first formal public meetings in the multi-year process to obtain two new 30- to 50-year term FERC licenses for West Branch and East Branch facilities. The focus of staff participation is to ensure the cost-effective protection of water supply and power generation benefits under a new license. *(see photo right)*



Site visit participants view Pyramid Dam, a licensed facility under the South SWP Hydropower FERC license

2016 State Water Contractors Water Operations Committee Fall Workshop—Metropolitan participated in the planning efforts of the 2016 State Water Contractors Water Operations Committee Fall Workshop. The workshop was well attended by staff and managers from the other 28 SWP contractors.

Implement the Local Resources Program.

On-site Retrofit Pilot Program—Under the On-site Retrofit Pilot Program, Metropolitan has provided incentives for retrofitting 184 sites for an estimated water savings of about 6,200 acre-feet per year. There are an additional 92 sites under construction.

Accelerated Recycled Water Retrofit Program—Under the Accelerated Recycled Water Retrofit Program, Metropolitan has provided incentives for retrofitting four sites for an estimated water savings of 29,000 acre-feet per year. There are an additional 20 sites under construction.



Park retrofitted for recycled water through Metropolitan’s ORP Program.]

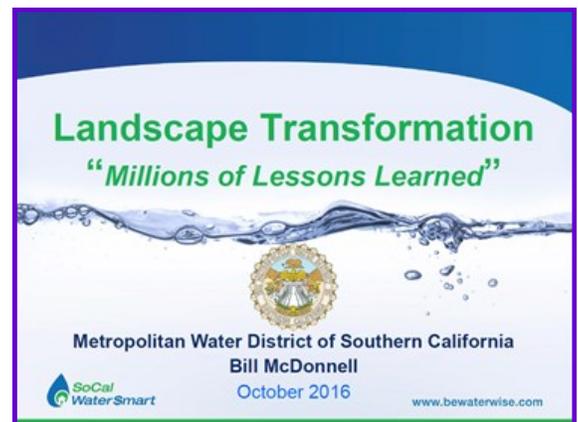
WATER SUPPLY continued...

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

Water-Energy Nexus Comment Letter—Metropolitan submitted a comment letter to the Public Utilities Commission (PUC) regarding its ongoing water-energy nexus proceeding. The PUC has developed a “water energy calculator” to enable Investor Owned Utilities such as Southern California Edison to invest in water conservation programs that save embedded energy, primarily electricity. In early October, the PUC issued a proposed ruling that would have dramatically expanded the proceeding to include a number of different issues including communications, data sharing emergency operations and other issues. Staff collaborated with Association of California Water Agencies and California Municipal Utilities Association in developing the comments. The PUC is expected to issue a final ruling by the end of the year. Staff will continue to monitor the process and submit comments when appropriate. The overall proceeding is scheduled to be complete in the spring of 2017.

Implement the Conservation Program effectively.

2016 WaterSmart Innovations Conference & Expo—Staff attended the 2016 WaterSmart Innovations Conference & Expo (<http://watersmartinnovations.com/>). This annual national conference is held in Las Vegas, NV, and highlights water conservation studies, programs and technologies throughout the country. Staff participated in Alliance for Water Efficiency committee meetings and gave presentations on Metropolitan programs and research findings. (*see photo right*)



Ensure reliable and cost-effective water management programs.

Sustainable Water and Innovative Irrigation Management Pilot Study—Staff began a 12-month pilot study with Sustainable Water and Innovative Irrigation Management (SWIM) System to monitor gate deliveries on Metropolitan-owned lands in Palo Verde Irrigation District. The pilot will install and calibrate a combination of water flow measurement devices that include sensors at headgates and in-channel weir/flume assemblies and sensors downstream of 15 headgates and monitor and report delivered water to Metropolitan turnouts in PVID. The results will allow Metropolitan staff to assess the current accuracy and quality of flow delivery data collected and reported by PVID and determine if improvements in flow measurements on the 230 headgates on Metropolitan’s delivery canals and gates are necessary.

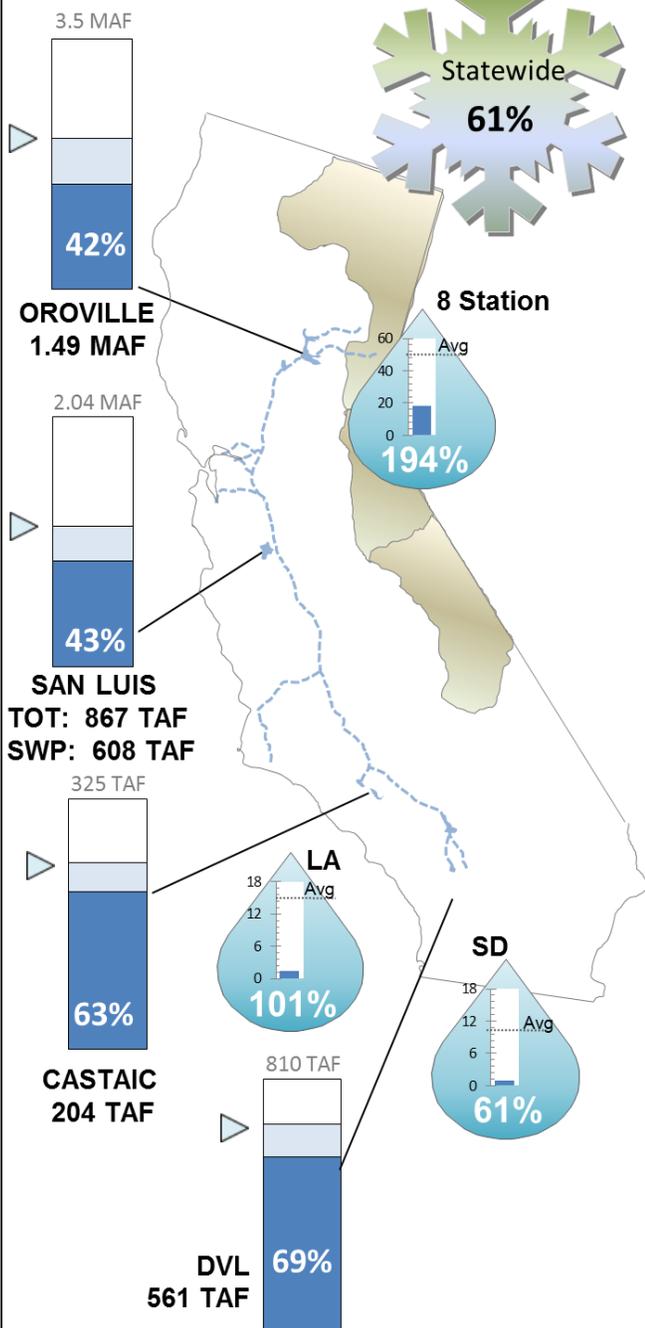
◆..... WATER SUPPLY CONDITIONS as of November 30, 2016◆

2016 SWP Allocation

1,146,900 AF

60% of Table A

(Does not include CVWD & DWA Table A)

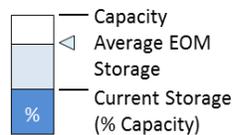
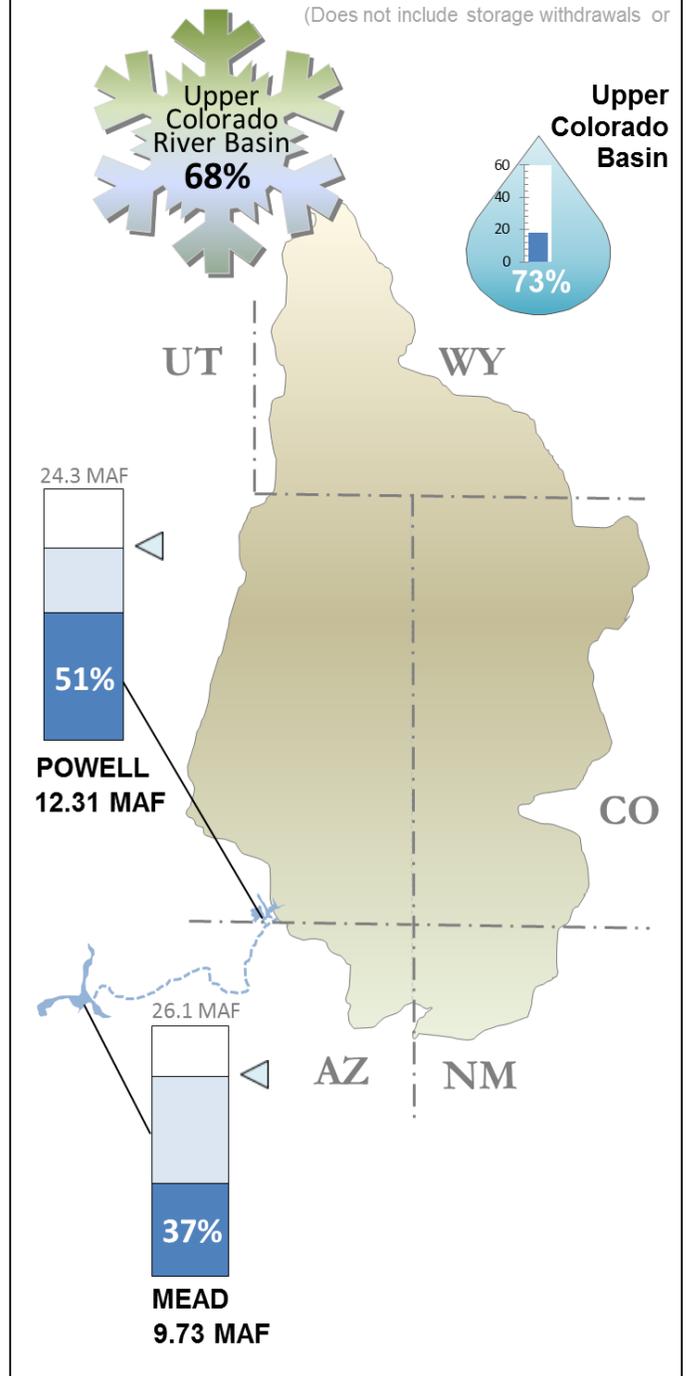


2016 Colorado River

865,000 AF

69% of full CRA

(Does not include storage withdrawals or



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 conversation 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.

Targeted blends for the Weymouth, Diemer, and Skinner treatment plants remained at zero percent for the month of November. The use of State Water Project water accounted for 45 percent of Metropolitan's deliveries during the month. Storage at Diamond Valley Lake remained at 562,000 AF or 69.3 percent full as Inland Feeder deliveries remained at zero. Staff is on track to increase storage reserves by approximately 340,000 AF by the end of 2016.

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 15 vacant positions in October 2016,

Prepare employees for new opportunities.

The Water System Operations Apprentice and Technical Training Programs develop and train personnel to become qualified electricians and mechanics responsible for maintaining Metropolitan's water treatment and distribution systems. This month, the Class of 2016 mechanical and electrical apprentices began *Demonstrated Proficiency Assessment* testing. This assessment is the final exam required for apprentices to complete the Apprenticeship Program and graduate to journey-level status.

CORE

PROVIDE RELIABLE WATER SUPPLIES

System Operations delivered approximately 172,800 acre-feet of water to meet member agency demands in November, which averaged approximately 5,760 AF per day. This was a decrease of 370 AF per day from October deliveries. Treated water deliveries for November totaled 64,000 AF, or 37 percent of total deliveries for the month. This is a decrease of 12,000 AF from October deliveries. In November, 74,400 AF of Colorado River water was pumped, which was an average of 2,480 AF per day. The CRA was increased from a four-pump flow to a six-pump flow on November 7, after the successful completion of scheduled maintenance on the CRA that required a reduced flow. Year-to-date CRA diversions are 909,000 AF. SWP imports averaged 2,600 AF per day for 78,000 AF for the month.

System Operations continued to maximize power generation throughout the month. Metropolitan's hydroelectric plants generated an average of 26.9 megawatts per hour for 19,400 megawatt-hours for the month.

WATER SYSTEM OPERATIONS

CORE

PROVIDE RELIABLE WATER SUPPLIES

Staff completed remediation work on the Santiago Lateral Pipeline due to erosion at Station 364+22 where there was less than one foot of fill over the pipe. Engineering provided design drawings for the remediation of the pipe that involved placing approximately five feet of fill over the pipeline and performing grading. The work also included placing fill along 900 linear feet of the patrol road, installing drainage with rip-rap (rock), and constructing 900 feet of concrete v-ditch drain. Adding these protective measures better prepares the pipeline for the upcoming winter season and decreases the possibility of future erosion problems. *(see photos below)*



Placement of polyethylene covering to protect the Santiago Lateral Pipeline prior to placing fill over the pipeline.



Slurry backfill to help protect the Santiago Lateral Pipeline against future erosion

CORE

OPTIMIZE MAINTENANCE

Staff maintains the Colorado River Aqueduct patrol and access roads and other aqueduct infrastructure including V-ditches, canal easements and washes, and the 230 kV transmission tower roads. As part of this work, staff processes materials locally from the various spoil piles left over from original tunnel construction sites throughout the CRA. The materials are processed initially into a basic aggregate size and then screened for the various sizes needed for the different maintenance and repair activities. About 450,000 tons of material has been processed over the last two months. This work is necessary to ensure adequate soil aggregates are on hand for repairs throughout the CRA in case of flash flooding, earthquakes, windstorms, and erosion. *(see photo right)*



A dozer pushing the spoils material down to the backhoe on the CRA

WATER SYSTEM OPERATIONS

CORE

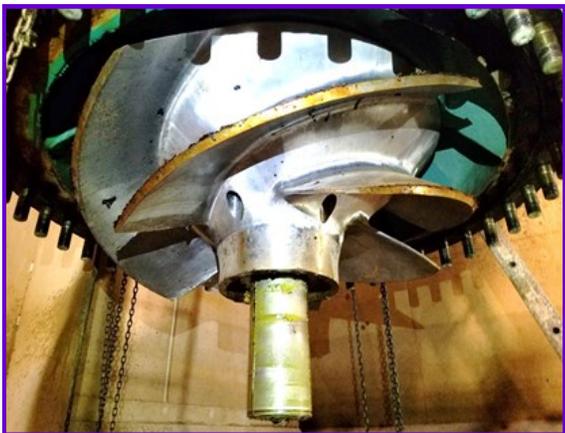
OPTIMIZE MAINTENANCE continued...

Staff continued to focus on pipeline and treatment plant coating maintenance. Staff recently completed coating repairs at the Perris Power Plant based on inspection reports from a recent shutdown. The repairs included coating of the turbine wicket gates that are used to adjust or shut off the water flow through the turbine. Other coating maintenance included a chemical containment area on Module 3 at Skinner, the ozone cooling water line at Diemer, the Sepulveda Pressure Control Structure, and exterior coating at the Apprenticeship Training Center at Diamond Valley Lake. *(see photos below)*



The wicket gates at Perris power plant before and after coating repairs.

Staff began the three-year inspection of the 12 pump/generator units at the Wadsworth Pumping Plant at Diamond Valley Lake. The work included inspections of all inlet bell housings, pump bowls, impellers, and coatings. Each unit has a rated flow of 175 cubic feet per second, and includes a 6,000 horsepower electric motor/generator. In the generation mode, 9 of the units are capable of generating up to 3.3 megawatts of power each, for a total of just under 30 megawatts. Through November, staff has completed inspection of four units. During the inspections, minor coating repairs were made. It is anticipated that all units will be completed by February 2017. *(see photos below)*



Pump impeller with pump bell removed on Wadsworth Pumping Plant unit 11.



Staff lowering the pump inlet bell housing on Wadsworth Pumping Plant unit 11 for inspection.

WATER SYSTEM OPERATIONS

CORE

OPTIMIZE MAINTENANCE continued....

The San Diego Canal East Bypass facility provides the flexibility to move water directly from the canal to San Diego Pipelines 3 and 5 and to the Skinner plant in the event of a shutdown or water quality issue at Lake Skinner. This bypass facility includes a debris retention rack (trash rack) that prevents debris from entering Pipelines 3 and 5 or the Skinner plant. Staff replaced the lifting sheave blocks on the trash racks due to corrosion that prevented the trash racks from being lifted out of the water for servicing. Staff fabricated and installed new stainless steel sheave blocks to replace the original galvanized steel sheave blocks. The trash racks have been returned to service and are operating effectively. *(see photo right)*



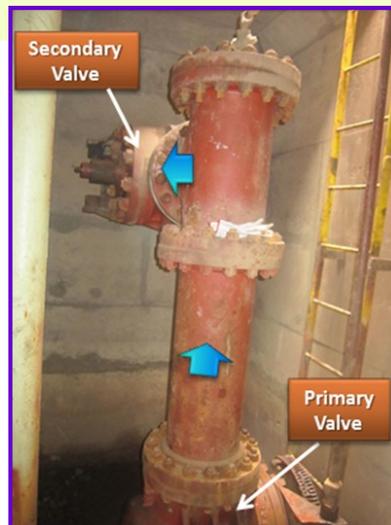
Installing new stainless steel sheave blocks on the San Diego Canal East Bypass facility.

Staff completed a shutdown on a 2.5 mile pipeline section of the Middle Feeder, in the City of Compton, to allow a contractor to perform rehabilitation work on a blow-off structure. The construction work included replacement of two 12-inch plug valves and associated piping, and replacement of the substructure's roof with a removable lid. Staff applied coating and performed the dewatering and isolation to the newly installed valves and associated piping. The shutdown was completed on schedule with no injuries. *(see photos below)*

Old valves and piping before the start of the Middle Feeder shutdown

and

Newly installed blow-off valves and piping on the Middle Feeder.



Staff completed replacement of six cooling water pumps for the ozone system at the Skinner plant. The new pumps ensure the ozone generators and associated equipment operate safely and efficiently. The work was performed under the Skinner Ozone Capital Appropriation as part of warranty work.

WATER SYSTEM OPERATIONS

CORE

OPTIMIZE MAINTENANCE continued....

Using condition-based maintenance techniques, staff identified changes in the operation of Valley View Hydroelectric Plant. Upon further assessment and inspection, staff identified a damaged component within the generator that needed immediate repair. Staff is currently developing the scope of repair work to return the unit to service as soon as possible. (*see photo right*)



Staff performing ultrasonic testing of the generator at Valley View hydroelectric plant.

CORE

MANAGE THE POWER SYSTEM

On November 1, Metropolitan submitted greenhouse gas allowances to the California Air Resources Board (ARB) in compliance with Cap-and-Trade regulations. The allowances covered 30 percent of the greenhouse gases associated with the electricity Metropolitan imported into California during Calendar Year 2015 to help satisfy the energy demands of the Colorado River Aqueduct pumps. The remaining allowance obligation for the 2015 energy imports will be submitted in subsequent years as provided by the Cap-and-Trade regulations. This is the second year Metropolitan has submitted allowances to the ARB. The value of the submitted allowances was approximately \$210,000.

Throughout the month of November, staff met with representatives of the Western Area Power Administration (Western), California Independent System Operator (CAISO), and Arizona Electric Power Cooperative (AEP) to discuss necessary arrangements to maintain Metropolitan's connection to Western's electrical substation near Hoover Dam and transition the Colorado River Aqueduct electrical transmission system from Southern California Edison control. The transition will occur when the existing Service and Interchange Agreement with Edison expires on September 30, 2017. After that date, Metropolitan will be working directly with the CAISO and AEP on operational and energy scheduling issues regarding the CRA.

CORE

IMPROVE SECURITY AND EMERGENCY RESPONSE

On November 2, representatives from the Los Angeles Department of Water and Power, Beverly Hills Water, Burbank Water and Power, Glendale Water and Power, and San Fernando Water Department joined staff to participate in Metropolitan's Western Threat emergency tabletop exercise. Over 80 people participated in this half-day exercise that was held at Metropolitan's Headquarters. The exercise was part of Metropolitan's five-year plan to give every member agency the opportunity to participate in an emergency exercise with Metropolitan. Various Los Angeles County emergency managers and staff from the California Office of Emergency Services also participated in this tabletop exercise that focused on a simulated terrorist attack in Southern California. The exercise demonstrated the importance of joint preparation and collaboration efforts amongst staff and agencies to be better prepared for an actual emergency.

WATER SYSTEM OPERATIONS

CORE

OPTIMIZE WATER TREATMENT AND DISTRIBUTION

SWP target blends at the Weymouth, Diemer, and Skinner plants were zero percent for November 2016. Flow-weighted running annual averages for total dissolved solids from September 2015 through August 2016 were 639, 635, and 635 mg/L for Weymouth, Diemer and Skinner plants, respectively.

Chlorine containment systems are already in place at Metropolitan's five water treatment plants and construction is underway at the Chemical Unloading Facility, located in Riverside County. Construction is funded through a \$32.5M Capital Improvement Project and the facility is undergoing operational testing presently and is scheduled to be on-line by mid-2017. The existing Chemical Unloading Facility constructed in 1975 remains in operation during the construction of the new facility, ensuring chlorine for delivery to the water treatment plants.

Work continues at the Mills plant on the \$3.81M capital improvement project to install permanent disposal for a majority of the industrial wastewater generated from plant maintenance activities, drains, equipment operation, and instrumentation. The system upgrades will allow safer and more efficient handling of the wastewater, while also improving reliability for containing wastewater generated on-site. The system includes three new 20,000 gallon, epoxy-lined steel storage tanks, which were delivered and placed by crane this month. The permanent installation will boost reliability and the plant's operational flexibility in managing industrial use water, as well as manage, control and store chemicals in the event of a release, and provide alternative methods to dispose of water to the local municipal sewer system.

(see photo right)



Storage tank placement by contractor crane at the Mills plant.

CORE

PROVIDE TECHNICAL SUPPORT TO MEMBER AGENCIES

Staff manufactured two new steel debris (trash) gates for the Department of Water Resources' Oso Pumping Plant. These new gates will replace two existing ones that have been in service for many years and have severely corroded. DWR plans to install the new gates in January 2017. *(see photos below)*



12-ft x 10-ft steel trash gate weighing 3000 lbs. after manufacturing (left) and after applying corrosion resistant coating (right) in the La Verne Shops for DWR's Oso Pumping Plant.

WATER SYSTEM OPERATIONS

CORE

Provide Technical Support to Member Agencies continued...

During October, work to complete a low flow bypass connection to existing Service Connection LA-37 was completed. A bypass connection with a 0.35 cfs capacity, designated as LA-37A, was installed, tested, and disinfected. Activation of the new service connection, which will be used when existing connection LA-37 is not in use, is scheduled to occur soon.

Service Connection LA-29 is a connection on the Sepulveda Feeder. Staff has begun conceptual design to add a new temporary meter (85 cfs) at this location in 2017. This new meter will be used while the Los Angeles Department of Water and Power performs work in its system.

Service Connection WB-41 is a new 25 cfs service connection requested by West Basin Municipal Water District. Staff is currently in the preliminary design process for this new service connection on the Second Lower Feeder in Torrance.

CORE

ENSURE WATER QUALITY COMPLIANCE, WORKER SAFETY, AND ENVIRONMENTAL PROTECTION

Metropolitan complied with all water quality regulations and primary drinking water standards during the month of November 2016.

CORE

SUPPORT EDUCATION AND OUTREACH INITIATIVES

Staff conducted four plant inspection trips during the month of November for approximately 120 participants at the Weymouth, Diemer, and Skinner plants. Approximately 12 participants from the Los Angeles Department of Water and Power attended a tour of the Weymouth plant and Water Quality Laboratory. 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. *(see photo below)*

Staff assisted with two inspections trips of the CRA this month. A total of 83 guests visited key sites along the CRA and received information relating to agricultural water use, water conveyance and storage, power production, and coordination of resources related to Colorado River users.



Staff from the Los Angeles Department of Water and Power toured the Weymouth plant and Water Quality Lab in La Verne.

CORE

PREPARE FOR FUTURE LEGISLATION AND REGULATION

On October 28, the Environmental Protection Agency released the final version of the revised Hazardous Waste Generator Improvements Rule. Metropolitan’s hazardous waste is covered by this rule. Metropolitan staff provided comments through the Utility Solid Waste Activities Group. For California, the Department of Toxic Substance Control (DTSC) is responsible for implementation and enforcement. The final regulation contains over 60 revisions and new provisions for hazardous waste programs. Staff is reviewing the final EPA rule, and tracking DTSC’s plans for implementation. Staff will update Metropolitan’s hazardous waste program and procedures accordingly.

On November 17, the EPA published the Fourth Contaminant Candidate list (CCL 4). This list is used to make Regulatory Determinations on whether or not to regulate at least five contaminants with national primary drinking water regulations every five years. The CCL 4 includes 97 chemical groups and 12 microbial contaminants. Staff closely monitors the development of the Contaminant Candidate List and will continue to track EPA’s progress.

On November 17, the Southern California Salinity Coalition, National Water Research Institute, and Southern California Water Committee sponsored a Salinity Management Summit held at Metropolitan's headquarters. Metropolitan staff attended the event and participated on its planning committee. The summit was attended by approximately 85 individuals representing water and wastewater agencies, Regional Water Quality Control Boards, consulting firms, academic institutions, and non-profit organizations. It provided a platform for participants to discuss salinity management challenges, including anticipated permitting and regulatory efforts to address salinity increases under drought and other changing conditions (e.g., climate change, recycled water use, stormwater capture).

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 11/30/16	% of Capacity
DVL	561,480 AF	69
Lake Mathews	109,751 AF	60
Lake Skinner	35,703 AF	81

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

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