



THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

GENERAL MANAGER'S MONTHLY ACTIVITY REPORT MAY 2015

May 31, 2015

This report identifies the actions and activities taking place during the month that support the objectives of the General Manager's Fiscal Year 2014/15 Business Plan.

CORE BUSINESS: Community Relations

13th annual Solar Cup™

The nation's largest solar-powered boat competition was held on May 15– 17 at Lake Skinner. The Solar Cup program is a team-based educational competition that allows students to apply their skills in math, physics, engineering and communications, while learning about Southern California's water resources, resource management, conservation and alternative energy development. (more on page 16 and 29)



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BAY DELTA INITIATIVES

STRATEGIC PRIORITY: COMPLETE BAY DELTA CONSERVATION PLAN

Continue to provide leadership in this process to restore the reliability of the State Water Project with the goal of completing the Environmental Impact Report/ Environmental Impact Statement within the upcoming fiscal year reaching decisions on the project.

Complete the final Bay Delta Conservation Plan and the associated Environmental Impact Report/ Environmental Impact Statement.

On April 30, 2015, the state proposed a change in direction for the Bay Delta Conservation Plan. State and federal agencies are proposing alternatives to separate the conveyance facility and habitat restoration measures into two separate efforts: California Water Fix and California Eco Restore. These two efforts would be implemented under a different Endangered Species Act permitting process and would be implemented to fulfill the requirement of the 2009 Delta Reform Act to meet co-equal goals.

Under the Eco Restore Program, the state has outlined an aggressive goal to restore at least 30,000 acres of Delta habitats over the next five years. These restoration actions include new projects as well as actions pursuant to pre-existing regulatory requirements, all designed to improve the overall health of the Delta. The California Water Fix focuses on the construction and operations of the new water conveyance facilities. Several changes are being proposed to the new water conveyance facilities that reduce overall project environmental impacts and minimize local community

disruptions. Additionally, the California Water Fix will identify mitigation that is required to offset construction-related impacts and address impacts from operations once the new conveyance facility is online.

As part of the state's new proposal, the regulatory approach to obtaining state and federal endangered species compliance would shift from the Habitat Conservation Plan/Natural Community Conservation Plan strategy to an approach that contemplates a Biological Opinion pursuant to the federal Endangered Species Act section 7 and an accompanying state permit. This approach as well as the proposed revision to the new water facilities and ecosystem restoration actions would be evaluated in a partially Recirculated Draft Environmental Impact Report/ Environmental Impact Statement expected to be released in the summer of 2015. Staff plans to fully evaluate the proposed changes once more information becomes available and assess how this new proposal would address Delta water supply and ecosystem concerns in a manner that meets the Board's policies and Metropolitan's long-term supply needs.

CORE: BAY DELTA SOLUTIONS

Develop near- and long-term solutions that enhance the Delta ecosystem, improve water supply reliability, and protect water quality.

Develop near-term measures, compatible with a long-term Delta solution, 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 previously, the SWRCB considered a Temporary Urgency Change Petition (TUCP) submitted by the California Department of Water Resources and the U.S. Bureau of Reclamation in January 2015, requesting temporary changes to the terms of the water rights permits for operation of the State Water Project/Central Valley Project for February and March 2015. On March 24, 2015, DWR and USBR submitted a request to modify the TUCP order to be effective from April through September 2015. On April 6, 2015, the SWRCB issued a revised order for the April through June 2015 time period. The need for a salinity barrier was identified in the TUCP. DWR decided to install the salinity

barrier at the False River location in the western Delta. DWR initiated construction, although a lawsuit challenging the decision to construct the barrier was filed by the Center for Environmental Science, Accuracy and Reliability on May 6, seeking an injunction to stop construction of the barrier.

The SWRCB is holding a public informational workshop on May 20 to receive public input regarding the SWRCB's drought-related activities in the Bay-Delta watershed, including the TUCP and curtailments. It started issuing curtailment notices directing diverters in the watershed to cease diversions. To date, curtailment notices have been issued to all junior water right holders having post-1914 rights and the SWRCB is considering what actions are necessary for senior water right holders (pre-1914 and riparian). Staff is coordinating with the State Water Contractors and will participate in the workshop

BAY DELTA INITIATIVES

CORE: BAY DELTA SOLUTIONS continued...

Ensure that Delta emergency response measures are implemented, including actions to develop a fresh water pathway after a major emergency event in the Delta.

Delta Emergency Preparedness—DWR reported that the funding agreement to improve levees on Old River, along the western portion of Bacon Island, is expected to be executed by mid-2015. This work would enhance levee reliability for a substantial part of the Old River levee system by providing levee crown and slope fill, and waterside levee armoring. These levee improvements would add to conveyance and emergency response capabilities being implemented in the south Delta. DWR also reported that they will raise the elevation of their major emergency preparedness storage facility in Stockton to provide additional protection in the event of flood emergencies.

BUSINESS TECHNOLOGY

CORE: BUSINESS PROCESSES AND INFORMATION TECHNOLOGY

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

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

Voice Over Internet Protocol Technology Project (VOIP)—The project team began assembling a comprehensive design document of how the system would be built and configured. An internal website of the project was developed to inform users on project progress.

Network Communications Infrastructure—To date, Metropolitan received deliveries of network equipment totaling about \$2.6 million out of the \$3.5 million budgeted. Staff deployed an additional 25 switches this month, with a total of 95 switches deployed since March 2015.

Enterprise UNIX Servers—In May, staff configured two new servers to prepare them to support the Oracle Financials, PeopleSoft, and Oracle Database Upgrade projects.

Emergency Radio Communications System Upgrade—The Board appropriated funds for the installation/construction work of the Emergency Radio Communications System. Equipment has been ordered and the Factory Acceptance Test is scheduled for next month.

Annual Power Outage Testing—The annual shutdown of building power at Metropolitan's Headquarters Building was successfully completed as part of Los Angeles' regulatory Fire Life Safety System testing. As a component of this process, IT staff successfully moved critical applications to the Lake Mathews disaster recovery site and supported Metropolitan during the outage.

Oracle 12 eBusiness Suite Upgrade—In May, staff completed both the Oracle 12 upgrade assessment report and the Conference Room Pilot. The Conference Room Pilot is a process in which the Oracle 12 environment is configured and standard functionality is demonstrated.

BUSINESS TECHNOLOGY

CORE: BUSINESS PROCESSES AND INFORMATION TECHNOLOGY continued...

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.

This month, staff is processing two potential annexation requests in Riverside County:

- Badlands Landfill through Eastern MWD for the Riverside County Sanitation District to improve an existing facility with public water service
- HealthSouth Murrieta Rehabilitation Hospital (105th Fringe Area) through Eastern MWD.

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

Cloud-Based Solutions—Staff created two new collaborative sites in SharePoint Online providing project teams improved environments to manage their work products and enhance communications. The two sites were in support of:

- MWD Solar Cup—This site was created for External Affairs and features documents, calendar, events, and a scorecard to track the activities associated with the Solar Cup event.
- MWD Power Outage—This site was created for IT staff to assist users with the coordination of activities during the annual power shutdown.

Fixed Asset Cycle Counting Process—The testing and pilot phases for replacement of fixed asset cycle counting software are complete, and the implementation plan has been outlined and finalized. Replacement of the counting software will improve the efficiency of the warehouse functions throughout Metropolitan

Maintain an effective Business Outreach Program for regional, small businesses and veterans to ensure broad participation and competitive costs.

Supported Member Agencies, State of California, the Southern California business and Veteran business communities, and innovation technology and academic communities with the following activity:

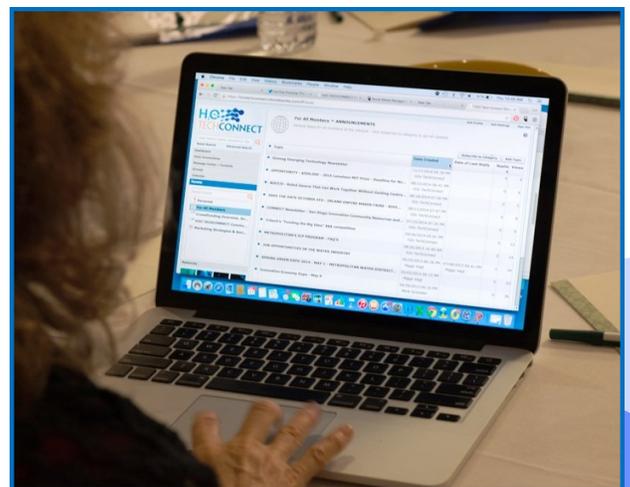
- Metropolitan supported its Service Disabled Veteran Owned Business Enterprise (DVBE) Program and the California DVBE community at the 21st Annual Disabled Veteran Business Enterprise Alliance's *Keeping the Promise* conference in Sacramento.

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

Headquarters Facility Energy Conservation Initiatives—The project to retrofit the parking garage with LEDs as identified in the Energy Audit was completed during May. Project plans for the implementation of remaining projects identified by the Energy Audit were also completed.

Managed Print Services Pilot—Completed the review of the pilot program survey results, which assessed the employees' overall work experience. These results will be incorporated into a report for management.

H2O TechConnect—photos below, story page 5



BUSINESS TECHNOLOGY

CORE: BUSINESS PROCESSES AND INFORMATION TECHNOLOGY continued....

Foster a culture of innovation.

H2O TechConnect Community

- On May 21, Metropolitan held its first H2O TechConnect Matchmaking and User Conference, *Make Connections that Matter*, in Pomona. The interactive conference brought together experts in areas including water, energy, funding, and business development for matchmaking and sharing of ideas. Staff discovered new water, energy, big data, cyber security, and unmanned aerial vehicle technologies that could benefit Metropolitan, and was invited to participate on panels and provide technology demonstrations. (*see photos below and on page 4*)
- Staff was invited by West Basin MWD to participate in a meeting about the California Energy Commission's Water Energy Technology Program that aims to discover new water and energy innovation technologies, and provide resources and funding to help participants commercialize their products.
- On May 15, Metropolitan hosted the Los Angeles Cleantech Incubator (LACI) Leadership Council to discuss partnering opportunities, pilot programs, the July grand opening of the Cleantech LACI, and use of incubator space. Staff gave presentations on Metropolitan's water conservation, drought awareness and innovations programs.
- Metropolitan, in partnership with Pasadena and Upper San Gabriel Valley MWD, presented the Connect 2 MET networking and educational event, *Bringing Public Sector Opportunities to Your Community*, on May 27 in Pasadena. Metropolitan Board Members Cynthia Kurtz and Michael Touhey welcomed over 100 business owners who had the opportunity to connect with Metropolitan and resource partners exhibiting at the event and learn about Metropolitan's water conservation efforts and purchasing opportunities through presentations and workshops.
- Metropolitan and San Diego County Water Authority participated in the *Path to Partnerships Networking Forum* in San Diego. Metropolitan introduced over 1,000 business owners to opportunities at Metropolitan, promoted Metropolitan's water conservation efforts, and encouraged business owners to register as vendors and get Small Business Enterprise Certification in Metropolitan's NETConnect system.
- Staff participated in the California Association for Local Development's 35th Annual Conference, *Empowering Local Development to Embrace Opportunity*.
- Board Member Sylvia Ballin welcomed the National Latina Business Women Association to Metropolitan's six-session *Business Development and Training* program that has been running for five years.
- Metropolitan supported the National Association of Women Business Owners at their San Diego 2015 Bravo Awards Ceremony.

Discussion about Drones at H2O TechConnect



Drone Display at H2O TechConnect

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

Monitor and mitigate external impacts on rates and charges to help maintain low rates, minimize their variability, and recover costs consistent with Board policy.

In April, the Board adopted the Calendar Year 2016 Readiness-to-Serve Charge and Capacity Charge. In May, the Board adopted the Fiscal Year 2015/16 Water Standby Charge.

CORE: 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.

Financial activities were recorded in a timely and transparent manner.

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

Staff continues to provide the necessary liquidity for Metropolitan's operational and capital expenditures with no loss of principal and no policy violations, while generating a portfolio return that exceeded the benchmark.

CFO PRIORITY: BUSINESS CONTINUITY

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

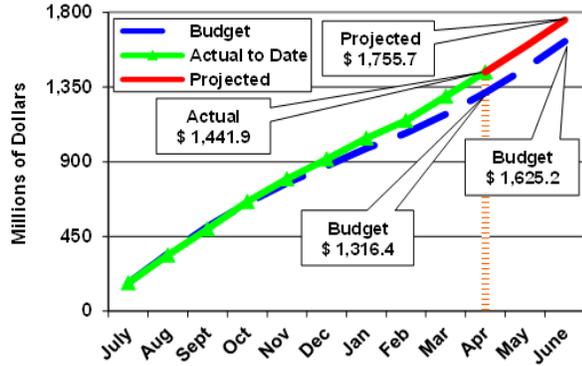
Manage Business Continuity Program in accordance with Operating Policy A-06.

Execution of the contract for implementation of the Fusion Framework Business Continuity Program Management System was completed on May 1 and a project kick-off meeting was held on May 13 to review the project schedule and commence implementation. Project team members began weekly meetings with Fusion Risk Management consulting staff effective May 21. Implementation and district-wide roll-out is expected in August.

CHIEF FINANCIAL OFFICER

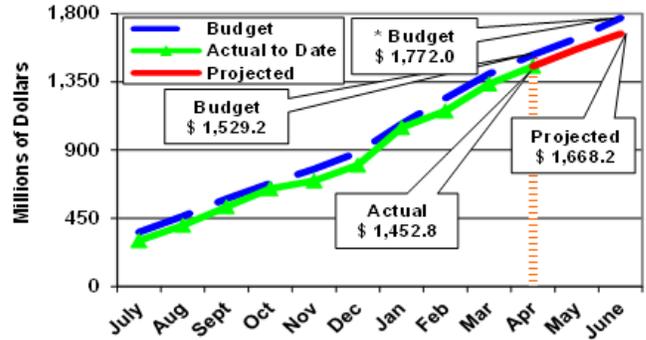
FINANCIAL SUMMARY AS OF APRIL 30, 2015

Revenues are expected to be \$131 million over budget at year end, mainly due to higher water sales.



Excludes bond construction and other trust funds activity

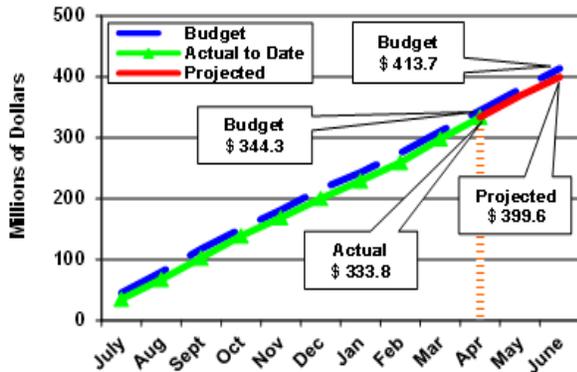
Expenses are expected to be \$104 million lower than budget by year end, mainly due to lower SWC and debt service costs, partially offset by higher demand management and CRA power costs.



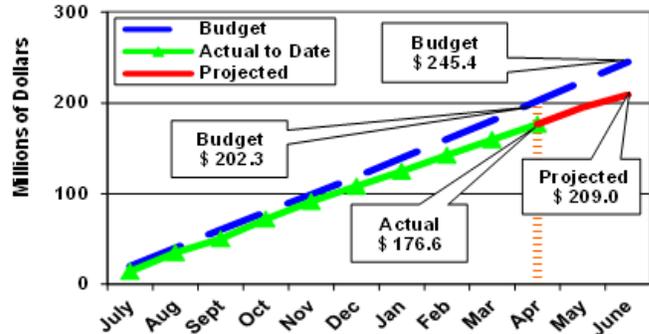
Excludes bond construction and other trust funds activity

* Includes \$72.6M and \$61.8M Board-approved increase for Water Supply Programs and Conservation, respectively.

O&M expenses are expected to be \$14 million below budget at year end, mainly due to lower labor and chemical costs.



The YTD construction variance is primarily due to the long permitting timeline for refurbishing the Palos Verdes Reservoir cover, liner, and outlet tower; and lower than planned progress payments on several construction contracts.



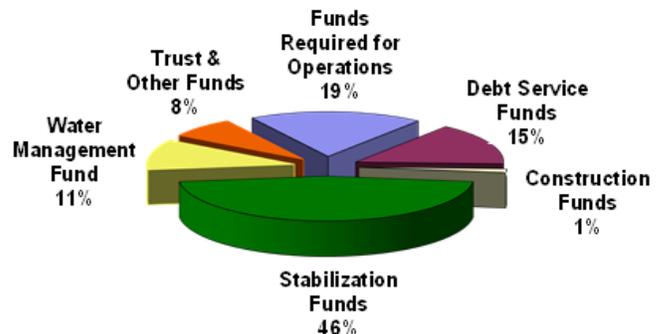
Summary Financial Statistics

	Target	Year-End Projected
Fixed Charge Coverage	≥ 1.20 x	2.25 x
Revenue Debt Service Coverage	> 2.00 x	2.69 x
Revenue Bond Debt / Equity Ratio	< 100.0%	57.9%

Credit Ratings

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

Cash and Investments at Fair Value \$1,484.1 million



ENGINEERING SERVICES

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 drought-response project will improve reliability of the Greg Avenue Pump Station by replacing the existing pump and pump/turbine and by upgrading the electrical and control systems. Final design is 65 percent complete and is scheduled to be complete by September 2015.
- Orange County Feeder Relining—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. Final design for Phases 1 and 2 is 95 percent complete and is scheduled to be complete by August 2015. Final design for Phase 3 is five percent complete and is scheduled to be complete by August 2016.
- Upper Feeder Structural Protection—This project extends the existing encasement of the Upper Feeder within Union Pacific Railroad property in the city of Fontana to protect the feeder from additional loads imposed by a new rail line. Construction is five percent complete and is scheduled to be complete by September 2015.
- Orange County Feeder Relocation within the city of Fullerton—This project relocates 1,100 feet of the Orange County Feeder to accommodate major street improvements planned by the city of Fullerton. A 7-day shutdown was completed to make the final tie-in. Overall construction is 90 percent complete and is scheduled to be complete by July 2015. *(see photo right)*
- Middle Feeder Blow-Off Valve Replacement—This project replaces two 12-inch blow-off valves on the Middle Feeder which have deteriorated after 60 years in operation. Final design is 60 percent complete and is scheduled to be complete by August 2015.

- Etiwanda Pipeline Relining—This project repairs damaged interior mortar lining on approximately five miles of the Etiwanda Pipeline. The work is being completed in three phases. Phase 1, which replaced 2,800 feet of interior lining, was completed in November 2014. Preliminary design for the remaining repairs is complete. A request to the Board to authorize final design and certify an environmental impact report is planned for June 2015.
- Santiago Lateral Butterfly Valve Replacement—This project replaces the existing sectionalizing valve at the Weir Canyon vault structure. Preliminary design is 90 percent complete and is scheduled to be complete by July 2015.
- Collis Ave Valve Replacement—This project replaces the existing 42-inch spherical valve with a new 42-inch multi-orifice valve that will provide more effective flow and pressure control. The two bypass lines will be modified to provide control at a low range of flowrates by installing a 12-inch diameter plunger valve on each line. Final design is 60 percent complete and is scheduled to be complete by October 2015.
- Diamond Valley Lake Inlet/Outlet Tower Fish Screens Rehabilitation—This project replaces existing fish screens on the DVL Inlet/Outlet Tower. Final design was completed in May 2015. A request to the Board for award of a construction contract is planned for October 2015.



Orange County Feeder Relocation in Fullerton

ENGINEERING SERVICES

CORE: INFRASTRUCTURE RELIABILITY continued...

Right of Way and Infrastructure Protection Program

This program performs needed site improvements within the distribution system such as 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 cover the entire conveyance and distribution system. Recent activity includes:

- Orange County and Western San Bernardino County Operating Regions—Final design of improvements is 40 percent complete and is scheduled to be complete by December 2015. Identification and final determination of additional right of way in support of the design improvements was completed in May 2015. The draft Environmental Impact Report for the Orange County operating region is 95 percent complete and is scheduled to be released for public review and comment by August 2015.
- Los Angeles County Operating Region—Preliminary design of improvements is 30 percent complete and is scheduled to be complete by October 2015.
- Riverside/San Diego County Operating Region—Preliminary design of improvements is 10 percent complete and is scheduled to be complete by December 2015.

Colorado River Aqueduct (CRA) Reliability Program

This program maintains the reliability of Metropolitan's Colorado River Aqueduct delivery system. Recent activities include the following:

- CRA Canal Improvements—This project improves curbs and lining along portions of the open canal. Final design is 90 percent complete and is scheduled to be complete by June 2015.
- Gene Warehouse Storage Replacement—This project replaces three deteriorated storage buildings located at Gene Pumping Plant with two new storage buildings. Construction is 90 percent complete and is scheduled to be complete by June 2015.
- Pump House Reliability—This study evaluates the condition of major pumping equipment and systems at each of the five CRA pumping plants. A request to the Board to authorize design is planned for September 2015.
- Radial Gates Replacement—This project replaces eight corroded radial gates located along the CRA. The gates are used to dewater and isolate various reaches of the canal. Design is 50 percent complete and is scheduled to be complete by December 2015.
- CRA Sand Trap Rehabilitation—This project replaces deteriorated sand trap equipment located upstream of the Iron Mountain, Eagle Mountain, and Hinds Pumping Plants. Final design is complete and a request to the Board for award of a construction contract is planned for September 2015.
- CRA Sump Pump Rehabilitation—This project rehabilitates piping and pumps at the main and auxiliary sumps at each pumping plant. A value engineering study was completed in May 2015. Design is 10 percent complete and is scheduled to be complete by December 2016.
- 6.9 kV Switch House Building Seismic Upgrades—This project performs seismic upgrades to the 6.9 kV switch houses at all five CRA pumping plants. Design is 10 percent complete and is scheduled to be complete by June 2016.

ENGINEERING SERVICES

CORE: INFRASTRUCTURE RELIABILITY continued...

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

Water Quality/Oxidation Retrofit Program

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 Oxidation Retrofit Project

- Main ORP Facilities—The Weymouth plant is the final facility to be upgraded under the ORP. Construction of the ozonation system is 76 percent complete and is scheduled to be complete by September 2016. (*see photo right*)
- ORP Chemical Facilities—These chemical systems are needed for integration of the upcoming ozonation system into the plant's treatment process. Final design of the hypochlorite facilities was completed in May 2015.

Diemer Oxidation Retrofit Project

- Diemer ORP—Metropolitan force completion activities for the ORP are scheduled to conclude in December 2015. Operational testing of the ozonation system continues. Notice to Proceed for revegetation of the plant's south-facing slope was issued and construction is scheduled to be complete by February 2016.

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:

Diemer Plant

- Electrical Upgrades, Stage 2—This project replaces electrical equipment, improves backup capability, and upgrades the plant's electrical system to be consistent with current codes and industry practices. Construction is 62 percent complete and is scheduled to be complete by April 2016.
- Yorba Linda Power Plant Turbine Replacement—This project replaces the existing Pelton wheel turbine with a

Prestressed Concrete Cylinder Pipe (PCCP) Reliability Program

This program was established to enhance the reliability of Metropolitan's water distribution system and to reduce the risk of costly emergency repairs of PCCP 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. Final design for procurement of steel liner and large-diameter valves is underway. Environmental studies are being conducted for the programmatic EIR, which is scheduled to be released for public review in late 2015. Staff is meeting with member agencies to perform long-term shutdown planning, in order to minimize outages resulting from the work



Weymouth ORP – Installation of pipe supports on the contactors deck.

Francis turbine capable of operating under post-ORP hydraulic conditions. Manufacture of the turbine generator is complete and the equipment has been delivered to the site. Construction is 85 percent complete and is scheduled to be complete by September 2015.

- East Filter Upgrades—This project upgrades the plant's east filters, including replacement of 127 deteriorated valves with Metropolitan-furnished AWWA-standard valves, and seismic strengthening of the filter buildings. A construction contract was awarded by the Board in February 2015. Construction is scheduled to be complete by November 2016

ENGINEERING SERVICES

CORE: INFRASTRUCTURE RELIABILITY continued...

Treatment Plant Reliability Program continued...

Weymouth Plant

- Washwater Reclamation Plant Upgrades—This project replaces deteriorated equipment in the Weymouth plant's washwater reclamation plant. Construction is 98 percent complete and is scheduled to be complete by August 2015. (*see photo page 12*)
- East Washwater Tank Seismic Upgrades—This project upgrades the Weymouth plant's east washwater tank to improve its ability to withstand a major seismic event. Construction is 40 percent complete and is scheduled to be complete by October 2015. (*see photo page 12*)
- Filter Rehabilitation—This project replaces the internal components of the plant's 48 filters, including the underdrains, media, launder troughs, and surface wash systems. Notice to Proceed was issued to the contractor in May 2015.

Mills Plant

- Bromate Control—Chloramine addition is utilized to control the formation of bromate as a disinfection by-product of the ozone disinfection process. The bromate control facilities will reduce annual chemical and ozone production costs. Final design of the bromate control facilities is 50 percent complete and is scheduled to be complete by December 2015.
- Chemical Unloading Facility Chlorine Containment—This project constructs chlorine containment facilities, including containment building, chlorine transloading system, chlorinator and evaporator system, scrubber system, control building and emergency generator. Construction is 27 percent complete and is scheduled to be complete by February 2017.

Skinner Plant

- Administration Building HVAC System Replacement—This project replaces the Administration Building's heating, ventilating, and air conditioning system. Design was complete in May. A request for an award of construction contract is planned for August 2015.

Jensen Plant

- Washwater Tank Seismic Upgrades—This project upgrades two washwater tanks to increase their capability to withstand a major earthquake. Construction is 72 percent complete and is scheduled to be complete by October 2015.
- Jensen Solids Transfer System—This project enables Metropolitan to use four solids lagoons on the grounds of the Los Angeles Aqueduct Filtration Plant. The initial construction contract is installing 7,600 feet of solids transfer piping and a utility crossing structure across Bull Creek Channel. Construction is 77 percent complete and is scheduled to be complete by August 2015. (*see photo page 12*)
- LADWP Lagoon Refurbishment—This project rehabilitates four LADWP lagoons which will be used by Metropolitan. The construction contract installs 7,500 feet of lagoon underdrain and decant piping and 1,700 feet of utility ductbanks, modifies existing manholes and installs new manholes with pumps, installs new crushed rock floor, and refurbishes valve structures. Construction is 10 percent complete and is scheduled to be complete by April 2016.
- Module No. 1 Filter Surface Wash Upgrades—This project replaces the existing surface wash system with a new fixed nozzle system. During filter backwashing, the top surface of a filter bed is sprayed with water to break up the solids that accumulate during the filtration process. Construction is 99 percent complete and is scheduled to be complete by June 2015. (*see photo page 12*)
- Module No. 1 Filter Valve Replacement—This project replaces 78 deteriorated filter valves within Module No. 1 with new Metropolitan-furnished AWWA-standard valves. Notice to Proceed was issued in February 2015. Construction is four percent complete and is scheduled to be complete by October 2016.
- Electrical Upgrades, Stage 1—This project replaces electrical equipment, provides backup in the event of individual component failures, and upgrades the electrical system to be consistent with current codes and industry practices. Final design is 85 percent complete and is scheduled to be complete by October 2015. Replacement of Unit Power Center UPC-7 was completed in May 2015.

ENGINEERING SERVICES

CORE: INFRASTRUCTURE RELIABILITY continued....

Weymouth plant—New washwater return pump



Weymouth East Washwater Tank Seismic Upgrades—Modified tank foundation



Jensen Module No. 1 Filter Surface Wash System Upgrade—Service water pumps



Jensen Solids Transfer System—Foundation for truss bridge



EXTERNAL AFFAIRS

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

External Affairs efforts will focus on educating the public, legislative leaders, government officials, non-governmental organizations, and other stakeholders on critical water supply conditions and critical water management decisions.

Inform Southern Californians about the drought/water supply conditions and how they can help improve water supply reliability through conservation actions and support for water supply projects.

- California's fourth straight year of drought and the impact on residents, communities, and businesses is garnering unprecedented press and public attention. Metropolitan senior management, led by General Manager Kightlinger, responded to news media requests for interviews and information, including Los Angeles Times, Riverside Press-Enterprise, Union Tribune-San Diego, Voice of San Diego, San Diego Business Journal, Sacramento Bee, San Francisco Chronicle, Las Vegas Review Journal, 24/7 News (Arizona), Washington Post, The New Yorker, Water Efficiency Magazine, KNX radio, KFI radio, National Public Radio, YTN Korean News Radio, CNBC-TV, KNPR (Nevada), Bond Buyer, Bloomberg TV, KRC-TV Channel 62 (Spanish), La Vanguardia (Barcelona), World Journal (China), and UTB Japanese-language TV.
- Arranged Sacramento Bee interview of Chairman Record on drought conditions and impacts in Southern California.
- Set up interview for Chairman Record with California Water on drought challenges facing Metropolitan and the Chairman's role as a water industry leader.
- Arranged editorial board meeting for General Manager Kightlinger with Bloomberg News.
- Set up interviews for Assistant General Manager/CFO Gary Breaux with Wall Street Journal and Bond Buyer on drought impacts to the municipal bond market.
- Arranged Metropolitan's participation in Solucion Azteca, a 12-hour water-issues Spanish language telethon sponsored by the Azteca television network.
- Completed three-week flight of radio traffic/weather spots in English, Spanish, Mandarin, Korean, and Vietnamese languages on water conservation and bewaterwise.com® for 2015 water awareness and conservation advertising campaign. A second three-week run began May 25.
- Digital outreach activities using GoogleAd and Google Content Network delivered 180,004 impressions in the first 12 days of activity. The Search Network delivered 55,871 impressions.
- Shared conservation tips with more than 90,000 people who visited Bewaterwise.com® in May, more than double the site traffic in April. On Twitter, staff launched 40 Days of Water Awareness to help engage more customers in conservation tips and ideas.

Secure support for the Bay Delta Conservation Plan (BDCP) to maintain State Water Project supplies, including any regulatory and/or legislative policies and funding needed to facilitate its implementation.

Issued statement from General Manager Kightlinger in response to Cal WaterFix and Cal EcoRestore, revised proposals announced by the Brown and Obama administrations for water conveyance and system improvements and ecosystem restoration in the Sacramento-San Joaquin Delta.

EXTERNAL AFFAIRS

STRATEGIC PRIORITY: EDUCATE THE PUBLIC AND STAKEHOLDERS ON CRITICAL WATER SUPPLY CONDITIONS AND CRITICAL WATER MANAGEMENT DECISIONS continued...

Expand and enhance Metropolitan's outreach to key stakeholder groups in Southern California, statewide, nationally and internationally in support of strategic priorities.

- Sponsored the Southern California Association of Governments 50th Anniversary Regional Conference and General Assembly featuring local elected and business leaders from throughout Southern California. Metropolitan staff participated in a panel discussion on investments in large infrastructure projects. (May 7-8)
- Presented an overview of drought and water supply conditions and water use efficiency programs for businesses to the Industrial Environmental Association. (May 14)
- Made a presentation to the North County Business Chamber in San Diego County on drought conditions and water use efficiency programs for business. (May 15)
- Sponsored the Orange County Water Summit *Liquid Motion* hosted by the Municipal Water District of Orange County and the Orange County Water District. The event featured panel discussions on water issues and policies, including water infrastructure and innovations in water policy. Director Beard attended the event. (May 15)
- Sponsored the Los Angeles County Business Federation (BizFed) *Next Up: Drought! What Can Business Do?* conference attended by Los Angeles County business and community leaders. Metropolitan staff participated on a panel discussion, *How Can Businesses Adapt and Respond to the Drought?* (May 18)
- Metropolitan hosted representatives of environmental organizations for a roundtable discussion on conservation outreach activities and opportunities for collaboration. (May 20)

CORE: LEGISLATIVE, COMMUNICATIONS AND COMMUNITY RELATIONS

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.

Develop and implement local, state, and federal water policy and legislative strategies consistent with Board-adopted policies.

FEDERAL

- Worked with the California Colorado River Board and Colorado River Basin Salinity Control Forum to advocate funding for the Salinity Control Program. Meetings were held with members of Congress, the Office of Management and Budget, the U.S. Department of Agriculture's Natural Resources and Conservation Service, and the U.S. Department of Interior's Bureaus of Reclamation and Land Management. (May 5-8)
- Together with the National Water Resources Association, Metropolitan staff sponsored a Congressional staff briefing in Washington, D.C. on the impact of drought conditions on the quality of water throughout the Colorado River watershed. (May 7)
- Participated in the Orange County Business Council's annual legislative *One Voice, Two Capitols* Washington D.C. advocacy trip. The event provided an opportunity for Orange County business leaders to meet with lawmakers, staff and members of the Obama Administration on business issues, including economic development, transportation and water policy. (May 18-20)

EXTERNAL AFFAIRS

CORE: LEGISLATIVE, COMMUNICATIONS AND COMMUNITY RELATIONS continued...

Develop and implement local, state, and federal water policy and legislative strategies consistent with Board-adopted policies. continued...

STATE

More Fees for Safe Drinking Water Program

The Senate Budget subcommittee approved the Governor's budget proposal to create new Safe Drinking Water program fees through emergency regulations. Metropolitan joined the Association of California Water Agencies, California Municipal Utilities Association and other organizations to propose an alternative approach that is fair, transparent and provides safeguards for fee payers. New emergency regulations and subsequent fee increases will be imposed on large water systems starting next year.

LOCAL

Sponsored and participated in the Los Angeles Area Chamber of Commerce's "Access Sacramento" advocacy trip. Over 100 business leaders and local elected officials attended the event, which featured a presentation by California Department of Water Resources Director Mark Cowin on current water policy issues. (May 19-20)

Participated with the Chamber Alliance of Ventura and Santa Barbara Counties' Annual lobbying trip in conjunction with the California Chamber of Commerce's Legislative Days Conference in Sacramento. Over 500 of the state's top business leaders attended the event to discuss pressing state issues, including the drought and Metropolitan's actions to conserve water and provide reliable supplies in the Southern California region. (May 27-28)

Support board member and executive management communications and working relationships with elected officials, other government leaders, business, agriculture, non-governmental organizations, community leaders and other stakeholders to improve awareness and understanding of water policy issues.

- Director Gloria Gray, Metropolitan staff and staff of the Los Angeles Department of Water and Power provided a briefing for Assembly Member Sebastian Ridley-Thomas on current water issues including the drought, Metropolitan's Water Supply Allocation Plan, and ways that Southern Californians are working together to conserve water. (May 1)
- Metropolitan directors and staff attended the Association of California Water Agencies 2015 Spring Conference in Sacramento to hear Governor Brown discuss drought conditions and statewide water conservation mandates. The conference also focused on Delta conveyance and ecosystem restoration activities, and various legislative and regulatory issues. Concurrent with the conference, ACWA held meetings of its regional boards and standing committees, including Communications, Federal Affairs, Water Management, Legal, Water Quality and Local Government Committees (May 5-8)
- Hosted the Los Angeles County Division of the League of California Cities May Board Meeting, which featured Los Angeles County Supervisor Sheila Kuehl. More than 100 city council members were present. (May 7)
- Sponsored and staff attended Central City Association of Los Angeles' Treasures of Los Angeles event. (May 14)
- Sponsored and staff attended the San Diego County Taxpayers Association Annual Dinner. (May 21)

EXTERNAL AFFAIRS

CORE: LEGISLATIVE, COMMUNICATIONS AND COMMUNITY RELATIONS continued....

Support Metropolitan's operations through communication and outreach to various stakeholders (including local government agencies and utilities) regarding water resources; water supply system operations and maintenance; water quality protection and water treatment; infrastructure replacement, refurbishment and development; and emergency management.

Met with the City of Fontana regarding the construction schedule for the Etiwanda Pipeline North Relining Project and with the City of Yorba Linda regarding the Diemer Upgrades Draft Environmental Impact Report.

Provide public outreach in coordination with member agencies to increase awareness of water issues and communicate Metropolitan's interests and Board-adopted policies.

- Metropolitan's sponsored its largest Solar Cup competition featuring 41 schools and over 800 students. The event took place at Lake Skinner. Staff provided logistical, planning and media support for the event. Chairman Record and Directors Morris, Peterson, and De Jesus attended and participated in the Award Ceremony. Canyon Springs High School in Moreno Valley won first place in the veteran's division. Oxford Academy in Cypress took the top prize in the rookie division. (May 15-17)
- Provided outreach and media support for Metropolitan's Spring Green Expo, which featured more than 70 exhibits by college students, businesses and public agencies. Issued press release to announce the winners of the ECO Innovators Showcase competition, Los Angeles' Otis College of Art & Design and University of California, Riverside. (April 30-May 1)

Coordinate with member agencies to advance Metropolitan's interests and Board-adopted policies.

- Hosted member agency public information officers meeting to provide an update on water conservation outreach activities, preview the 2015 water conservation campaign developed by advertising firm Quigley Simpson, and improve coordination on drought response. (May 28)
- Hosted member agency education coordinators meeting to provide an update on water education outreach activities. Staff also provided an update on the education strategic plan. (May 28)

Provide a suite of educational products and programs to educate students about water and foster water stewardship in younger generations.

General Education Activities

- Provided educational curriculum and materials for more than 700 students (grades K-12) at Topanga Canyon Elementary School, East LA Science Complex, 3rd Annual Garden Festival, Lake Elsinore Unified Career Day and Ronald Reagan Elementary School.

Education Website—There were approximately 5,300 unique visits to the Education website from April 16 – May 13, 2015.

Diamond Valley Lake Education Program—Facilitated school workshops and tours for more than 900 students from Harmony Elementary, Day Middle School, Crowne Hill Elementary, Boulder Ridge Elementary, Romoland Elementary, Estudillo Elementary, McSweeny School, Bellhouse Academy Homeschool, Luiseño Elementary, Callie Kirkpatrick, and Little Lake Elementary. The Education Unit continues to coordinate with Real Property, Facilities, and Water Systems Operations to manage ongoing issues.

Student Art Program—The *Water is Life* Art Exhibit toured Ventura County Water Works, Las Virgenes MWD, Cucamonga Valley MWD, and Jurupa Community Services. These events were covered and promoted on social media.

HUMAN RESOURCES

CORE: HUMAN RESOURCES EXCELLENCE

Foster Human Resources excellence with innovative and efficient processes that attract, hire and develop the right people with the right skills at the right time; provide management with the tools to swiftly and proactively address employee issues and poor performance; enable cost-effective workforce management together with the tools to continually improve workforce skills, competencies, productivity and customer support.

Ensure Metropolitan is a high-performance workplace with excellent leadership and management practices that engage and empower employees; foster alignment with Metropolitan's business goals; provide the right talent and skills for future business needs; and foster a workplace where employees implement cost-effective processes and programs to deliver outstanding value and customer support.

Control Workers' Compensation Costs.

- Conducted initial investigations on 13 injury incidents.
- Submitted 6 new claims to Metropolitan's workers' compensation claim administrator.
- Settlements were negotiated in 1 claim, finalized in 3 claims, and 4 claim files were closed.
- Arranged 14 medical evaluations (DMV, medical surveillance, hearing conservation, etc.).
- Conducted MedVan evaluations at Soto Street facility.
- Addressed 2 accommodation issues.
- Coordinated random drug/alcohol tests at 2 facilities.

Provide proactive, swift, and consistent employee relations and positive labor relations.

- During the month of May, Employee Relations staff initiated Memorandum of Understanding salary negotiations with three bargaining units: American Federation of State, County and Municipal Employees, Management and Professionals Association, and the Supervisors Association. Monthly updates to the Organization, Personnel and Technology Committee will be provided while negotiations are ongoing.
- Equal Employment Opportunity Investigations also concluded a lengthy internal investigation involving staff within the Water Systems Operations Group. Findings will be reported to Water System Operations management.

Maintain compliance and effectiveness in benefit programs.

- Continued with the planning of implementing new services acquired through the RFP process for Metropolitan's Deferred Compensation plans.
- Conducted three workshops with 77 participants. Topics include *Stepping into Retirement*, and *Introduction to Investments, and Insurance Planning*.
- Researched and finalized plans to implement Sick Leave for temporary employees.

Identify, assess and manage risk.

- The Risk Management Unit completed 39 incident reports communicating instances of Metropolitan property damage, liability, workplace injuries, regulatory visits and spills.
- Risk Management completed 85 risk assessments on contracts, including professional service agreements, construction contracts, entry permits, special events and film permits.

Continue to implement technology solutions that support various Human Resources functions, processes and procedures.

Continued to test benefits and HR transactions as part of the PeopleSoft upgrade.

Set high-performance standards.

Distributed Manager Tips for MyPerformance guidance for effective, on-time completion of the Fiscal Year 2014/15 Year-End MyPerformance Evaluations to all managers.

HUMAN RESOURCES

STRATEGIC PRIORITY: EMPLOYEE DEVELOPMENT

Increase cross-training and employee development efforts to meet the challenges of increased retirements due to an aging workforce. Expand recruitment and retention initiatives to keep pace with retirements and to ensure a diverse workforce who is prepared for the future needs of Metropolitan. Define competencies critical to future needs of the organization.

Acquire Talent

- Completed the Assistant Engineer I recruitment in a reduced timeframe, which resulted in making job offers for 5 positions to college students in advance of graduation. The partnership with Engineering allowed management to select highly qualified soon-to-be graduates, giving Metropolitan an opportunity to hire exceptional talent.
- Completed hiring of new staff in recruitment to replace upcoming vacancy due to retirement.

Partner with senior leadership to address future business, organizational, cultural and people challenges.

Monthly meeting of HR and Group Managers discussed FY2014/15 Year-End MyPerformance, follow-up on Voices Employee Survey Actions and planning for the July 16, 2015 Management Forum.

Foster management excellence.

- Started the fourth cohort of the Leading Technical People class for managers, principal engineers and senior engineers.
- Continued to provide teambuilding and change management support to three teams and facilitating coaching interventions with external coaches for four managers.
- Provided Manager Briefings on conducting the training plan conversation with administrative employees, as part of the preparation for district-wide roll-out of the Administrative Assistant/ Administrative Analyst Series Training program.

Foster learning and organizational development to support development of internal talent pipelines.

- A pilot series of two-hour workshops on specific areas of software training was delivered. Topics covered included *Excel: Formulas and Functions*, *Access: Table Design*, *PowerPoint: Creating and Designing Slide*, and *Word: Tables*. More classes on targeted topics are scheduled for the rest of the year.
- Designed and coordinated delivery of the seventh session of the *Water System Operations Management Academy* focused on managerial efficiency, interview preparation and employee relations.
- Classes delivered this month include: *5Choices to Productivity*, *Everyday Business Writing*, *Integrated Budget Management System*, and *MS Excel Part 1 and 2*.
- *Developing Emotional Intelligence* class was delivered at the Weymouth plant.
- The last class in the University of California, San Diego's Rady School of Management's Strategic Leader Certificate program series was delivered.

REAL PROPERTY DEVELOPMENT & MANAGEMENT

CORE: REAL PROPERTY ACQUISITION, MANAGEMENT AND REVENUE ENHANCEMENT

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

Pursue development 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.

Staff presented a DVL recreation overview to the State Water Project Recreation Coordinating Committee during a three-day Colorado River Aqueduct tour. Tour participants included DWR representatives and directors from Los Angeles County Department of Parks and Recreation.

In Fiscal Year 2014/15, Metropolitan received \$20,294 through April on the percentage lease with Urban Park Concessionaires for the operation of the DVL Marina, Lakeview Trail, and North Hills Trail. The rent received represents seven percent of the gross receipts. Diamond Valley Lake has hosted approximately 668,500 visitors at its marina facilities and 156,000 private boats have launched since the 2003 public opening.

Seek revenue-generating opportunities for real estate assets in several market segments, such as telecommunications, solar development, film production, and sustainable technology and research.

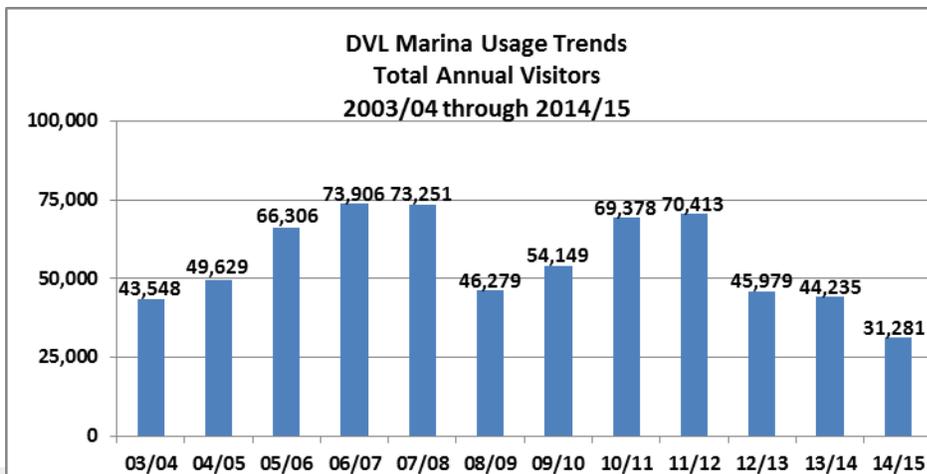
A lease previously issued to Bottling Group, LLC, for parking and landscaping purposes was amended to exercise tenant's first 10-year option to renew on a portion of Metropolitan's Box Springs Feeder Pipeline right of way in the city of Riverside.

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

- Staff completed an inspection and a rental survey on a single-family residence for the emergency responder at Lake Mathews.
- Staff completed a rental survey for a single-family residence located near the F. E. Weymouth Water Treatment Plant.
- Staff reviewed the Right of Way and Infrastructure Protection Program cost studies for the Orange County region prepared by an independent consultant.
- Staff completed a cost study for the Collis Ave Valve Repair project as part of the Palos Verdes Feeder.
- Staff provided property research, valuation, and planning support to Bay Delta Initiatives related to potential near- and long-term projects in the Delta.
- Staff continues to work with Legal and Engineering Services to assure that Metropolitan has appropriate access for repair projects and appropriate rights for existing and proposed facilities within the Right of Way and Infrastructure Protection Program.

Evaluate additional use and rental of Metropolitan Headquarters building space.

Picrow, Inc. was issued a permit to film scenes for a movie entitled *Hand of God*. Filming took place in various areas at the Metropolitan Headquarters Building, including the board room, executive dining room, and lobby.



Note: Actuals are through May 2015; Project 45,000 visitors for FY14/15.

WATER RESOURCE MANAGEMENT

STRATEGIC PRIORITY: LOCAL PROJECTS AND INTEGRATED RESOURCES PLAN UPDATES

Review Local Resources Program and conservation rebate programs during this drought period to review what new actions might be appropriate, learn from this experience as to how to improve Metropolitan programs and work with the public and member agencies on expanding conservation efforts. Metropolitan's IRP was adopted in 2010 and will be updated in 2015 along with the state-required Regional Urban Water Management Plan.

Implement the Local Resources Program.

Terminal Island Water Reclamation Plant—Staff attended the groundbreaking ceremony for the Terminal Island Water Reclamation Plant Advanced Water Purification Facility Expansion. Staff is working with the Los Angeles Department of Water and Power on an LRP application for this project. The project would ultimately provide about 8,000 acre-feet per year of recycled water for seawater barrier, industrial and irrigation purposes.

Prepare analyses, studies, and reports on the Integrated Resources Plan implementation.

IRP Update—At the May 26, IRP Committee meeting, invited guest speakers provided informative presentations on conservation potential and conservation rates and their importance to the IRP Update. Staff also provided the Committee with a status update from the member agency technical process for the month of May. Staff led three IRP technical workgroup meetings with the member agencies during May. The technical workgroup meetings were focused on imported supplies, water use efficiency, and groundwater and stormwater.

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.

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

Recycled Water Projects—The Governor's Office of Planning and Research hosted a conference call to brainstorm ways and measures that the state can help to expedite water reuse. Staff and representatives from WateReuse, ACWA, member agencies, and other water agencies participated and provided input.

Colorado River Basin Salinity Control Forum—Staff attended the Colorado River Basin Salinity Control Forum and Advisory Council meetings in Salt Lake City. Business items covered include review of Forum policies, progress on the Colorado River System Conservation Pilot Agreement, federal funding and updates on salinity control measures throughout the Colorado River Basin.

Moving Forward – Phase 1 Report—The Bureau of Reclamation has released its *Moving Forward – Phase 1 Report* that follows up the prior water supply and demand study. Staff held leadership positions and participated in the committees that were responsible for preparing the report. The report outlines actions that can be pursued to maintain reliability of water supplies throughout the Colorado River Basin over the coming decades. Staff will continue to work with Reclamation and the Basin States in implementing recommendations of the report.

Ensure cost-effective and reliable imported water supplies.

2014 Colorado River Accounting and Water Use Report—Staff reviewed and provided comments on the Bureau of Reclamation's calendar year 2014 Colorado River Accounting and Water Use Report. This is the 50th anniversary report for the decree accounting.

Statement of Charges—Staff met with the staff of the Department of Water Resources and reviewed the results of the annual audit of Metropolitan's 2015 charges. The errors identified by the auditor were added to the Department's list of claims to be resolved in the upcoming year.

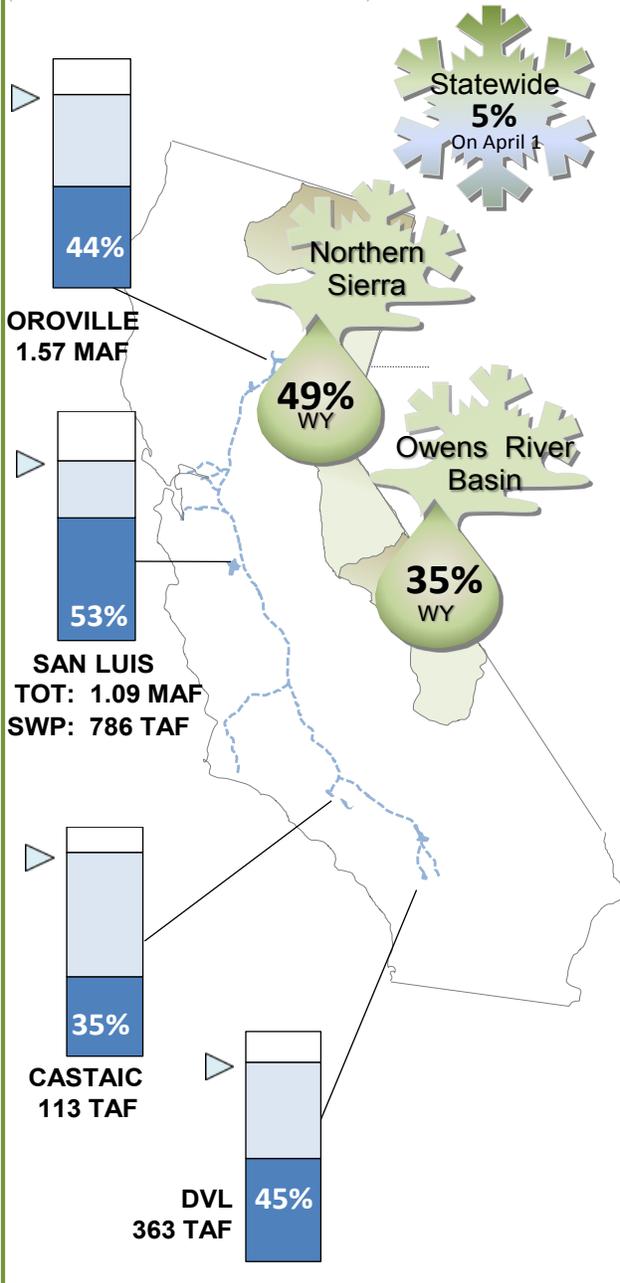
WATER SUPPLY CONDITIONS as of May 31, 2015

2015 SWP Allocation

382,300 AF

20% of Table A

(Does not include CVWD & DWA Table A)

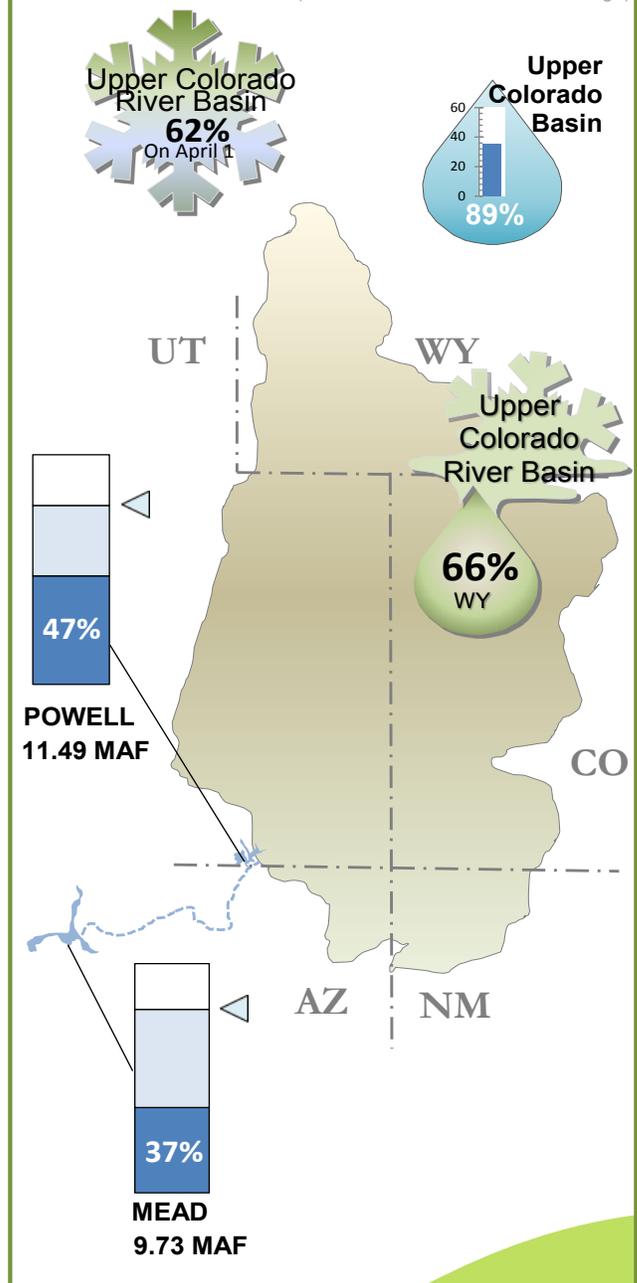


2015 Colorado River

925,000 AF

74% of full CRA

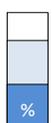
(Does not include Lake Mead Storage)



Regional Snowpack



Precip



Capacity
Average EOM Storage
Current Storage (% Capacity)



Snow pack % April 1



Runoff Forecast Water Year (WY) to Date unless otherwise

WATER SYSTEM OPERATIONS

CORE: PROVIDE RELIABLE WATER SUPPLIES

System Operations delivered approximately 150,000 acre-feet of water to meet member agency demands in May, which averaged approximately 4,800 AF per day. This was a decrease of about 650 AF per day versus April's deliveries; normally May demands exceed April's by about 500 AF per day. Treated water deliveries for May totaled 68,000 AF, or 45 percent of total deliveries for the month. In May, 107,600 AF of Colorado River water was pumped as the CRA remained on an eight-pump flow for the entire month. State Water Project imports averaged 1,650 AF per day for 51,000 AF for the month. This was a decrease of 8,000 AF from April. System Operations continued the strategy of minimizing the use of SWP water wherever possible. For the month of May the use of SWP water accounted for 34 percent of Metropolitan's deliveries. This was a two percent decrease from April deliveries.

Storage at Diamond Valley Lake decreased by 11,000 AF to 368,000 AF, or 45 percent full. System Operations released 11,000 AF from Diamond Valley Lake in May to support system wide operations. Inland Feeder deliveries were at zero percent for the month. SWP blends to the Weymouth, Diemer, and Skinner plants remained at zero percent due to the low SWP allocation of 20 percent. The Greg Avenue pump station remained online for the month of May. As of the end of the month, the pumps at Greg Avenue have delivered 44,000 AF of CRA water to the western side of Metropolitan's distribution system since initiation on March 19, 2014.

System Operations continued to maximize power generation throughout the month. In May, Metropolitan's hydroelectric plants generated an average of 14.6 megawatts per hour for 10,900 megawatt-hours for the month.

CORE: OPTIMIZE MAINTENANCE

During the Orange County Feeder shutdown in May, staff performed corrective maintenance work on various valves throughout the feeder. As part of this work, staff replaced two heavily corroded access covers. The La Verne shops blasted and coated the hatches with corrosion-resistant coating and returned them on time for installation during the shutdown. *(see photos below)*



Access plate before (left) and after (right) coating

WATER SYSTEM OPERATIONS

CORE: OPTIMIZE MAINTENANCE *continued...*

Staff replaced a 16-inch secondary isolation valve that had been in service for 45 years in the Venice area of the Sepulveda Feeder pipeline. The plug valve, used when dewatering the pipeline, no longer operated properly and was subject to binding due to internal corrosion. To ensure reliability, the plug valve was replaced with a new, rubber-lined butterfly valve. This work was completed without interrupting service on the pipeline. *(see photo below)*



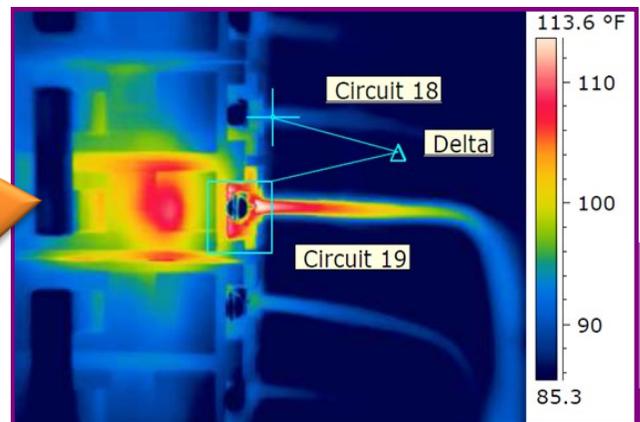
Removal of 45 year-old plug valve from the Sepulveda Feeder pipeline

Staff continued the system-wide coatings program aimed at preventing corrosion and extending the life of pipelines and infrastructure. Projects completed this month included electrical switchgear enclosures at the Eagle and Iron Mountain pumping plants. *(see photo below)*



Employees preparing to coat the Eagle Mountain electrical cabinets

Staff conducts routine infrared analysis of electrical equipment to detect anomalies before they damage equipment or shut down facilities. Several minor issues were found this month, including an overheating circuit breaker that is part of the fish barrier screen entering Lake Skinner. The circuit breaker was replaced. *(see photos below)*



Fish barrier circuit breaker (left) and view of overheating circuit breaker using infrared technology (right).]

WATER SYSTEM OPERATIONS

CORE: OPTIMIZE MAINTENANCE *continued...*

Staff examined the Valley View power plant when vibration analysis showed an imbalance in the turbine. Staff identified a failed bracket and developed a solution that allowed the unit to return to service within a week. *(see photo below)*



Generator fan repair at Valley View hydroelectric plant

To keep the Colorado River Aqueduct access roads and protective diversion dikes maintained, crews mine and process up to 25,000 cubic yards of rock, gravel, and sand each year. These materials come from strategically located sites that service segments of the CRA. After environmental clearance, staff uses loaders and power-screening equipment to create stockpiles of different grades of material (fine, medium, and coarse) that will be used for maintenance and repairs during the monsoonal season and throughout the year. Processing and storing these materials onsite makes them readily available and eliminates purchase costs and remote area delivery fees. *(see photo below)*

Processing of sand, gravel and rock for CRA stockpiles



CORE: MANAGE THE POWER SYSTEM

On May 11-12, Metropolitan staff attended meetings to discuss the new Hoover Dam power contracts that will become effective when the current contracts expire in 2017. The Western Area Power Administration (WAPA) is the federal agency responsible for negotiating the new contracts and presented meeting attendees with the government's initial draft of the contract. The meetings were attended by existing and future Hoover power contractors, including Tribal entities. WAPA plans to have the final contract ready by October 2015 for parties to sign.

WATER SYSTEM OPERATIONS

CORE: IMPROVE SECURITY AND EMERGENCY RESPONSE

On April 28, Metropolitan staff attended the regular meeting of the Water and Dam Emergency Response (WADER) group in Riverside County. This group provides a forum for water agencies in Riverside and San Bernardino counties to share information and collaborate before an emergency. Staff also attended a Summer Weather Outlook workshop at the Orange County Emergency Operations Center on April 30. Speakers from the National Weather Services, Orange County Fire Authority, Municipal Water District of Orange County, and Orange County Emergency Service Bureau briefed attendees on the measures the County is taking to respond to the drought and wildfires expected this summer.

On May 5-7, staff participated in a Train-the-Trainer course given by the California Specialized Training Institute, the training arm of the Governor's Office of Emergency Services. By completing this course, staff was certified to provide state required emergency management training to other Metropolitan staff in a faster and more efficient manner than in the past. Also, these newly certified, in-house trainers will be teaching courses that are part of a future state credentialing program to standardize training for all people working in government Emergency Operation Centers in California.

CORE: PROTECT SOURCE WATER QUALITY

On May 6, staff participated in a stakeholder meeting regarding an updated perchlorate cleanup strategy for the former Tronox site in Henderson, Nevada. The Nevada Environmental Response Trust is currently conducting remedial investigations for long-term soil and groundwater cleanup. The Nevada Division of Environmental Protection established a separate bureau that will oversee site cleanup efforts, and is also initiating a regional investigation of downstream perchlorate-contaminated areas to further reduce perchlorate loading into Las Vegas Wash. These investigations will support selection of the final perchlorate remedy by 2018 and ensure continued protection of the Colorado River. Staff continues to monitor performance of the current groundwater remediation system, development of the long-term remedial plan, and distribution of the Trust's \$1.1 billion settlement proceeds for site cleanup.

CORE: PROVIDE TECHNICAL SUPPORT TO MEMBER AGENCIES

Staff met with a group of operations personnel and environmental scientists at the Orange County Water District to discuss quagga mussel control efforts and optional treatment technologies which they could employ to facilitate the movement of Colorado River Aqueduct water from Metropolitan connections into OCWD's spreading grounds for groundwater replenishment.

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 May 2015.

On May 6, the U.S. Environmental Protection Agency (USEPA) released health advisories for two algal toxins that can be found in drinking water, microcystin and cylindrospermopsin. Although the health advisories are not enforceable standards, they do provide guidance to water utilities and state regulatory agencies about the potential health effects, detection methods, and treatment options for the algal toxins. Utilities and states can then decide on any actions warranted to reduce exposure. In the announcement, USEPA recommended a 10-day exposure limit for microcystin of 0.3 micrograms per liter (ug/L), and for cylindrospermopsin of 0.7 ug/L (this level is for children under the age of 6; the health advisories for older individuals are somewhat higher). Staff is coordinating with American Water Works Association and Association of Metropolitan Water Agencies to provide input and comments on the health advisories, and is tracking the actions of the State Water Resources Control Board in response to the health advisories.

WATER SYSTEM OPERATIONS

CORE: DEVELOP WORKFORCE

The Water System Operations' Apprentice and Technical Training Programs help develop and train personnel to become qualified electricians and mechanics responsible for maintaining Metropolitan's water treatment and distribution systems. The Class of 2015 Electricians and Mechanics completed their eighth and final period of related instruction. After completing approximately 640 hours of classroom and laboratory instruction over the course of four years, students are prepared to participate in Demonstrated Proficiency Assessments for their respective crafts. These assessments are scheduled for the first week of June and consist of hands-on exercises designed to test skills in the electrical and mechanical maintenance fields. All students are required to successfully complete these tests before attaining journey-level status.

Maintenance and repairs on distribution system equipment can present unique training opportunities that allow experienced staff to pass on technical skills and knowledge specific to Metropolitan's system. After evaluating the aging bearing lube oil piping system at the Coyote Creek hydroelectric plant, it was determined that a complete re-pipe of the system was warranted. This provided an opportunity for two apprentices to work under the guidance of advanced journey-level Hydroelectric Specialists and practice a number of the skills learned in Apprenticeship training.

Hydroelectric Specialists training Apprentices on re-piping a power plant bearing lubrication system.



CORE: PREPARE FOR FUTURE LEGISLATION AND REGULATION

On April 27, the U.S. Department of Health and Human Services released the final Public Health Service recommendation for the optimal fluoride level in drinking water. The new recommendation is for a single level of 0.7 mg/L of fluoride which replaces the previous temperature-dependent range of 0.7 to 1.2 mg/L. In response, the Division of Drinking Water of the State Water Resources Control Board provided updated guidance to California utilities that fluoridate their drinking water. Starting June 1, 2015, Metropolitan will adjust the required fluoride target level from 0.8 mg/L to 0.7 mg/L leaving Metropolitan's treatment plants.

On April 29, Governor Brown issued an Executive Order to establish an updated California greenhouse gas reduction target of 40 percent below 1990 levels by 2030. The California Air Resources Board will be proposing various provisions, measures, and regulations for the different economic sectors, including water and wastewater, to meet these statewide measures. Staff will be tracking and providing input on proposed legislative and regulatory measures (e.g., water/energy nexus) that may impact Metropolitan and its member agencies.

WATER SYSTEM OPERATIONS

CORE: OPTIMIZE WATER TREATMENT AND DISTRIBUTION

State Water Project target blends at the Weymouth, Diemer and Skinner water treatment plants remained at zero percent for May. Flow-weighted running annual averages for total dissolved solids for March 2014 through February 2015 were 613, 611, and 539 mg/L for Weymouth, Diemer and Skinner plants, respectively.

On May 11, the Diemer plant conducted a five-day reduced flow outage to verify existing conditions in preparation for fabricating and installing two isolation drop gates. These drop gates will improve isolation of portions of the east plant during major construction projects to improve seismic protection and rehabilitate basins without impacting other portions of the plant. [\(see photo below\)](#)

Staff completed final operational testing of the replacement service water pumps at the Jensen plant. These District-furnished pumping units were installed by a contractor. Service water pumps provide the capability to feed disinfectant chemicals and are the most critical mechanical components in the treatment process. As such, coordination for replacing these pumps with over 40 years of service while the Jensen plant was in operation was critical to meeting treated water demands. [\(see photo below\)](#)



Staff inspecting filter influent channel during Diemer outage.



Replaced service water pumps at the Jensen plant.

Staff modified the ozone generation control program at the Jensen plant to treat drought-caused flows that are below 10 percent of the treatment plant design range. This modification lowered the minimal limit from 10 percent to 7.5 percent of the full ozone generator capacity. Testing of the lower limits was conducted to verify that the equipment operated successfully. Disinfection byproducts, such as bromate, were also reduced by adjusting the minimum required ozone production. [\(see photo right\)](#)



Staff performing maintenance on the ozone generators at the Jensen

WATER SYSTEM OPERATIONS

CORE: OPTIMIZE WATER TREATMENT AND DISTRIBUTION *continued...*

Containment of chemicals, especially chlorine, improves security and reduces safety risks by providing handling facilities to contain and neutralize any leak. Chlorine containment systems are in place at Metropolitan's five water treatment plants and construction is underway for a remaining facility located in Riverside County. Construction is funded through a \$23 million Capital Improvement Project and is schedule to be completed in mid-2017. The existing Chemical Unloading Facility constructed in 1975 remains in operation during the construction of the new facility, ensuring chlorine delivery to the water treatment plants.

CORE: SUPPORT EDUCATION AND OUTREACH INITIATIVES

Staff supported five Director tours to desert facilities in the month of May with a total of 185 guests. Participants were able to see the CRA and pumping plants operating at the critical 8-pump flow, and learn about the resources required to keep the system in operation. Additionally, the Reuters news agency photographed various pumping plants and sites along the CRA over a period of three days to illustrate drought-related stories that will highlight Metropolitan's CRA.

Staff also conducted five treatment plant tours during the month of May at the Diemer, Skinner, and Weymouth plants. Tour participants, including Board members, member agencies, local government officials, and non-profit organization members, learned about water treatment processes, source water protection, and drought response initiatives.

Storage	As of 5/31/15	% of Capacity
DVL	363,718AF	45
Lake Mathews	64,460 AF	35
Lake Skinner	35,713 AF	81

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

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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