

### • Water System Operations May 2005 Activity Report

#### Summary

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Following is a summary of Water System Operations Group activities for the period following the May 2005 Board Meeting

#### Detailed Report

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##### Security Update

Security improvements are proceeding according to schedule and budget. Johnson Controls, Inc. (JCI) completed installation of conduits, cables, and equipment for the security network at all project sites other than Union Station and Diamond Valley Lake where installation work is continuing. Metropolitan and JCI worked together and brought the security network on-line at Eagle Rock, Weymouth Plant, Palos Verdes Reservoir, and Carson and Alameda Pressure Control Structures. Metropolitan approved the revised site acceptance plans for Eagle Rock and Weymouth Plant. Site acceptance and 30-day operational tests started at Eagle Rock and Weymouth Plant on June 1.

##### Water Quality Update

Metropolitan has complied with all drinking water quality standards during this reporting period.

##### *Disinfection By-Products and DBP Precursors*

Trihalomethane (THM) samples were collected from the five treatment plants and in the distribution system on a weekly basis. The four-week THM levels (parts per billion - ppb) and State project water (SPW) blends for the most recent four-week period, ending the week of May 30, 2005, were:

	<u>THM Levels</u>		
	4-week Average	4-week High	Percent SPW Blends
Mills	21 ppb	22 ppb	100%
Jensen	57 ppb	69 ppb	100%
Diemer	46 ppb	59 ppb	35%
Skinner	57 ppb	61 ppb	37%
Weymouth	48 ppb	52 ppb	35%

The total organic carbon (TOC) four-week average at the Mills influent has decreased to 4.4 parts per million (ppm) in May, down from 5.5 ppm reported in April. Jensen influent TOC four-week average has remained at 3.6 ppm in May. Distribution system THM levels in parts of Orange County and the central pool were as high as 73 ppb, and the 4-week average ranged from 50 to 61 ppb. The target SPW blend at the Diemer and Weymouth plants is currently 50 percent. The THM levels at Skinner have begun to drop due to reduced SPW blend and reduced chlorination at the plant influent.

##### *Perchlorate*

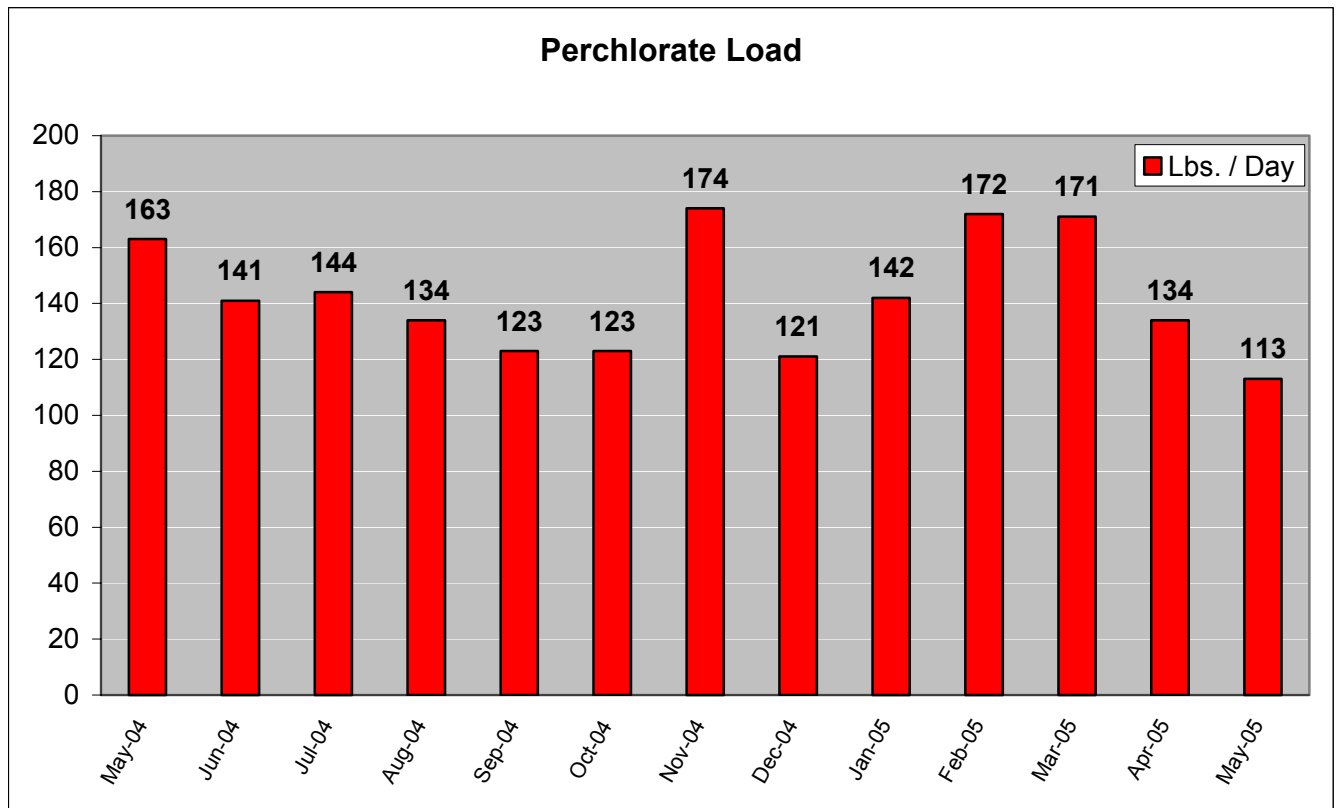
Perchlorate was not detected at or above the California Department of Health Services' (CDHS) detection limit for purposes of reporting (DLR) of 4 ppb at any of the monitoring locations in May 2005. Metropolitan is capable of measuring perchlorate at a minimum reporting level (MRL) of 2 ppb and since January 2005, perchlorate levels in the Colorado River source water locations (Lake Havasu at Intake, San Jacinto Tunnel West Portal, and Lake Mathews) have ranged from non-detect (<2) to 3.4 ppb. No other source waters, treatment plant effluents, or distribution system locations have perchlorate detections above the MRL of 2 ppb from January through May 2005.

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Currently, there is no regulatory standard for perchlorate. CDHS plans to establish a maximum contaminant level (MCL) this year, based on the Office of Environmental Health Hazard Assessment (OEHHA) public health goal (PHG) of 6 ppb.

Perchlorate clean-up efforts in Henderson, Nevada continue. Based on our weekly monitoring data and the real-time flow data provided by the Nevada Department of Environmental Protection (NDEP), the average loading at North Shore Road for May 2005 was calculated to be 113 lbs/day.

Perchlorate loads measured at North Shore Road are presented in the figure below:



### *Chromium 6*

Metropolitan continues to participate in the Department of Toxic Substance Control's (DTSC) Consultative Workgroup, in order to ensure that Metropolitan's interests are represented.

Chromium 6 concentrations in extraction well MW 34-100 have ranged from 452 to 559 ppb from April 4 through May 30, 2005. As a result of these findings, the DTSC has directed Pacific Gas and Electric (PG&E) to install an additional extraction well [PE-1] that is closer to the Colorado River than MW 34-100. This new extraction well was completed, but is not yet operating pending approval of permits. PG&E is also constructing an on-site treatment plant, which is expected to begin pre-testing in July 2005.

Monthly sampling of the Colorado River near the PG&E site continues. Chromium 6 was not detected (<0.03 ppb) in any of the samples collected in May.

Currently, there is no drinking water standard for chromium 6. The CDHS MCL for total chromium is set at 50 ppb. The OEHHA is working on a PHG, which will be used by CDHS to set an MCL for chromium 6 in the upcoming year.

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### *Taste-and-Odor (T&O)*

Lake Skinner was treated with 10 tons of copper sulfate on May 19 to manage a large blue-green algae bloom that was producing unacceptable levels of geosmin. The bloom was quickly brought under control and the geosmin rapidly dissipated.

Low-level background concentrations of MIB and geosmin have been scattered around the source water system. Special attention has focused on Lake Mathews, Castaic Lake and the East Branch of the State Water Project, where minor signs of T&O activity are present.

### *Total Dissolved Solids (TDS) Levels*

The June 2004 through May 2005 twelve-month flow-weighted average TDS levels for the Diemer, Skinner, and Weymouth plants were 457, 478, 461 ppm, respectively. These levels meet Metropolitan's water quality objectives for TDS.

## **Water Treatment Update**

The Jensen Water Treatment Plant has successfully completed the 14-day test of operation of the plant ozone system. During this period the manufacturer, Ozonia, along with Metropolitan's operations personnel, operated the system 24 hours per day for the 14-day period. The successful completion of this test meets the requirements of the CDHS standard of installed and operating, and complies with the obligation to be operating on or before July 1, 2005. This is a major milestone in the completion of the project. We will now transition into the 42-day evaluation period to ensure that all equipment meets the design capacity contract requirements.

The Mills Water Treatment Plant filter media replacement project has been completed and all 32 filters in module 2 are now operating in the biological filtration mode. Only ozone is being added as a primary disinfectant prior to the filtration process, which results in a reduction in the formation of THMs. Filter media replacement at the Jensen Plant is moving slowly as the contractor continues to have difficulties obtaining a supply of anthracite coal that meets the specifications. However, it is anticipated that the project will be completed by October 2005, and there will be no impact on the plants ability to meet demands or regulations.

Completion of testing and startup of the delayed chlorination systems at both the Diemer and Weymouth Plants was accomplished during this time. At each plant, the first point of chlorine application was moved from the plant influent to the filter inlet. This change has resulted in a reduction of THMs leaving the plants and will provide more flexibility in treating higher blends of SPW.

At 8:45 a.m. on June 22, 2005, an incident occurred at the Skinner Treatment Plant that resulted in the rejection of one half of the plant flow (approximately 430 cubic feet per second) into Tualata Creek. Water was discharged into the creek for about one hour. While staff worked to determine the cause and effects of this incident, the Member Agencies reduced their demands on the plant and successfully implemented their Treated Water Demand Management Plan. The problem was corrected and at 6:00 p.m. the plant returned to full operations. During this event, the plant continued to provide a reduced flow of treated water, and all water quality standards were met. The preliminary cause of the rejection is the closing of the reservoir inlet slide gate by the control system. Until a thorough investigation is completed, the gates have been disabled from the control system and power to the gates has been shutoff.

## **Conveyance & Distribution Update**

### *Project Activities*

Efforts this period have centered on pump installation activities at service connection OC-88 in Irvine. We are nearing the completion of the project to reconfigure the pump station at this connection, which is on the south end of the Allen-McColloch Pipeline. Four of the seven pumps are currently operational and the remaining work is on schedule. This facility is important for the reliable delivery of water to southern Orange County and must operate on a continuous basis. This project will substantially reduce the energy costs for the associated pumping operations and will provide some additional water delivery capacity as well. It is anticipated that the pump station will be fully on-line by early summer.

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### Water System Update

As of June 19, 2005, total State Water Project (SWP) in-basin deliveries for the calendar year (CY) were 519,700 acre-feet (AF). These deliveries include 439,200 AF on the East and West Branches and 80,500 AF through the San Bernardino Valley Municipal Water District/Inland Feeder Interconnection and the San Gabriel Valley Municipal Water District. All SWP deliveries to-date are from CY 2004 carryover accounts, Article 21 and Table A.

Through June 19, 2005, CY Colorado River Aqueduct (CRA) deliveries were 299,000 AF, or 47 percent of the current approved diversion target of 743,000 AF.

Reservoir levels are indicators of water supply conditions for the SWP, CRA and Metropolitan's service area. The following storage levels for key reservoirs reflect monthly data as of June 19, 2005:

<b>Metropolitan Reservoirs</b>	<b>Storage To-Date</b>	<b>Percent of Capacity</b>
Diamond Valley Lake	755,600 AF	94%
Lake Mathews	150,500 AF	83%
Lake Skinner	38,900 AF	88%
<b>State Water Project Reservoirs</b>		
Lake Oroville	3.51 MAF	100%
San Luis Reservoir Total	1.61 MAF	79%
San Luis State Share	0.76 MAF	71%
<b>Colorado River Reservoirs</b>		
Lake Powell	11.6 MAF	48%
Lake Mead	15.7 MAF	57%
<b>SDCWA Reservoirs</b>		
24-Reservoir Total	442,100 AF	74%

As of June 19, 2005, the San Gabriel Valley Groundwater Basin key well elevation was 251 feet above sea level. This elevation is 15 feet higher than the ten-year average of 236 feet.

Snowpack in the Sierra Nevada Mountains remains above normal. As of June 19, 2005, the snowpack was 204 percent of normal to-date at Mammoth Pass, and 283 percent of normal to-date at Donner Summit.

#### *Sales and Deliveries*

Water sales for May 2005 were 146 thousand acre-feet (TAF). May 2004 sales were 243 TAF, which is also the high-sales record for the month of May.

#### *Precipitation*

The Colorado River system had five consecutive years of below-normal rainfall from 2000 through 2004. In 2005 drought conditions have eased and storage is expected to recover to 2003 levels. As of June 19, precipitation was 110 percent of normal and seasonal snowpack was measured at 85 percent of normal.

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For the current water year (October 1, 2004 through September 30, 2005) through June 19, 2005, total precipitation for four southern California cities and the Eight Station Index (a measure of precipitation in the SWP's watershed) is:

<u>Weather Station</u>	<u>Precipitation</u>	<u>Percent of Normal</u>
Los Angeles Civic Center	37.25 inches	256%
Santa Ana (John Wayne Airport)	25.17 inches	204%
San Diego Airport	22.47 inches	216%
Riverside Airport	21.20 inches	217%
Eight Station Index	55.60 inches	116%

As of June 19, 2005, the Los Angeles Civic Center has received 37.25 inches of rain, which is now the second highest year on record, and only 0.93 inches lower than the highest annual record of 38.18 inches, which was set in 1883-84.

### **Power Update**

During May, Metropolitan purchased 52,800 Megawatt-hours (MWh) of firm energy from energy traders and utilities throughout the western United States at an average rate of \$29.47 per MWh for a total purchase cost of about \$1.56 million. Metropolitan provided 67,128 MWh of exchange energy to Southern California Edison, resulting in a net 26,890 MWh of exchange energy owed to Metropolitan. Metropolitan will receive this energy before October 1, 2005.

In May, Metropolitan generated 35,099 MWh at its small hydroelectric power plants for total revenue of about \$1.6 million. There was no generation from DVL power plant in May.

There were no pump curtailments for DWR or Metropolitan in the month of May.