

- Water System Operations March 2006 Activity Report

### Summary

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Following is a summary of Water System Operations Group activities for the period following the March 2006 Board Meeting

### Detailed Report

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#### Security Update

Security improvements are proceeding according to schedule and within budget. Johnson Controls, Inc. (JCI) completed installation of hardware for the security network at all sites. Staff previously identified some technical anomalies with the programming of the video system servers and brought this to JCI's attention for priority resolution. Subsequently, JCI completed specific testing at Eagle Rock, demonstrating their resolution of the issue. As agreed upon, Metropolitan and JCI restarted site acceptance testing at all sites, including the ones accepted prior to the video programming issues, to ensure proper setting and operation of all system components. At this point, all individual sites have operated successfully for over 30 days since their recommissioning and all but three have been formally accepted. Metropolitan has identified punch list items for the remaining three sites, which are currently being addressed by JCI. In addition, a change order was approved to install security improvements for the newly constructed Jensen Oxidation Retrofit Facility, to ensure consistent security enhancements for this new facility. Metropolitan and JCI are currently planning the final 30 day acceptance testing of the entire system, which will also include command center testing for Eagle Rock.

#### Water Quality and Treatment 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 March 27, 2006 were:

	<u>THM Levels</u> (Plant Effluent)		Percent SPW Blends
	4-Week Average	4-Week High	
Mills	18 ppb	23 ppb	100%
Jensen	22 ppb	24 ppb	100%
Diemer	49 ppb	59 ppb	73%
Skinner	50 ppb	55 ppb	49%
Weymouth	43 ppb	48 ppb	73%

The total organic carbon (TOC) four-week average at the Mills influent was 3.9 parts per million (ppm) in March, up from 3.6 ppm reported in February. The Mills plant influent TOC began to decrease beginning the third week of March. The most recent TOC levels from Northern California have remained under 4 ppm.

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Jensen influent TOC four-week average remained at 2.9 ppm in March. Distribution system THM levels in parts of Orange County and the central pool were as high as 73 ppb, and the four-week average ranged from 31 to 63 ppb. The Skinner distribution system sites have ranged from 46 to 67 ppb for the four-week period ending March 27, 2006.

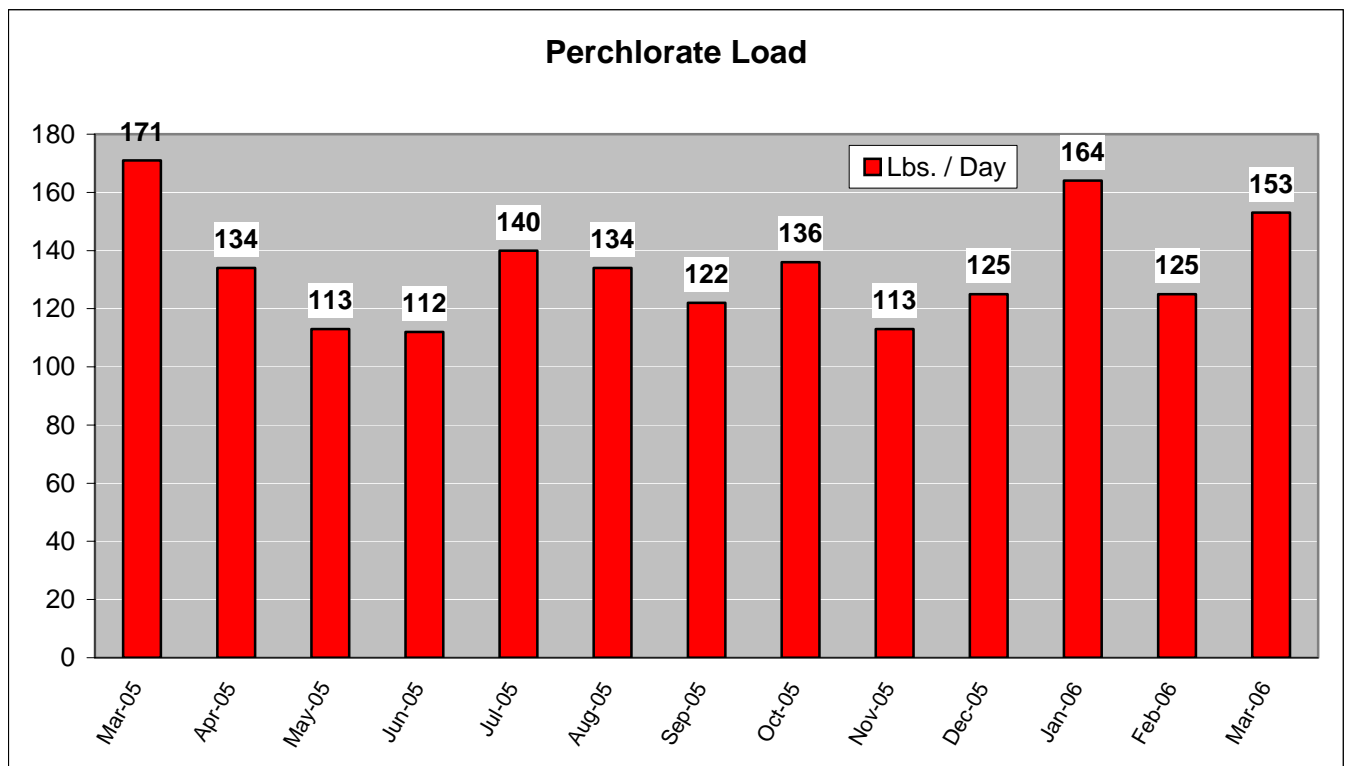
### *Perchlorate*

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 ppb) to 3.4 ppb in 2005. For the month of March 2006, perchlorate levels at all monitoring locations along the Colorado River Aqueduct (CRA) were below detection.

Currently, there is no regulatory standard for perchlorate. California Department of Health Services (CDHS) plans to establish a maximum contaminant level (MCL), 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 monthly 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 March 2006 was calculated to be 153 pounds per day (lbs/day). This increase from February was due to the after affects of elevated storm flows and wash out of perchlorate from local soils.

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's) Consultative Workgroup in order to ensure that Metropolitan's interests are represented.

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Although pumping at extraction well PE-1 continued since January 2006, monitoring well 34-100 (located approximately 50-65 feet from the river) increased from 752 ppb in February 2006 to 830 ppb in March 2006. In addition, highly elevated levels of chromium 6 were detected at two new monitoring wells, MW 44-115 and MW 44-125 (located 70 feet north of MW 34-100 and 90 feet from the river). Chromium 6 concentrations in monitoring well MW44-115 were measured at 1,440 ppb on March 22, 2006, while chromium 6 concentrations in monitoring well MW 44-125 ranged from 67 to 362 ppb from March 9 through March 22, 2006. 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 March.

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 that will be used by CDHS to set an MCL for chromium 6.

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

There are no taste-and-odor problems in our source or finished waters at this time.

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

The April 2005 through March 2006 estimated twelve-month flow-weighted average TDS levels for the Diemer and Weymouth plants were 459 and 439, respectively. The twelve-month estimated flow-weighted average TDS for Skinner was 518 and has exceeded the goal of 500 because of SPW blend restrictions required to meet the Stage 1 Disinfectants/Disinfection By-Products regulations at the Skinner plant.

### *Fluoridation*

Construction of fluoridation facilities is in progress at the Diemer and Skinner plants. The construction contract for the Mills plant fluoridation facilities was awarded at the March Board. The award of the construction contract for the Weymouth facility will go to the May Board. Bids for the Jensen facility will be opened April 25th and a construction contract covering the Jensen Plant is also pending board approval at the June Board meeting.

### *Treatment Plant Shutdowns*

The Mills plant was shut down for three days from March 22 through 24, 2006, to connect the Perris Valley Pipeline to the Mills plant effluent. Additional work performed during this shutdown included high voltage maintenance and repairs to eliminate minor leakage.

### *Proposition 50*

Metropolitan has been invited by CDHS to submit a full application for grant funding under Proposition 50, Chapter 4(b) for the Diemer, Skinner and Weymouth Oxidation Retrofit Programs. Chapter 4(b) provides grant money for Southern California projects that reduce reliance on surplus Colorado River water. Metropolitan had previously submitted pre-applications requesting \$20 million in Chapter 4(b) funding for each of the three plants. CDHS assigned a priority ranking to all pre-applications and is providing grants in the order of the priority list. Receipt of grant funding can take a year or more from when the invitation to submit a full application is received.

## **Conveyance & Distribution Update**

The month of April brings this year's shutdown season substantially to a close as far as conveyance and distribution facilities are concerned. Only two pipeline shutdowns were scheduled during the month. The first was a six-day shutdown of the Lakeview Pipeline from March 27 through April 2. This pipeline conveys SPW from Lake Perris to Diamond Valley Lake (DVL), Lake Skinner, and the Skinner plant. The shutdown was needed to repair a leak in one of the joints of this welded-steel pipeline. Such small leaks have historically occurred on this pipeline and an internal band was used for the repair. The other pipeline shutdown was on the South Coast Feeder in southern Los Angeles County, during the week of April 17. This prestressed concrete cylinder pipe (PCCP) is included in Metropolitan's periodic inspection program for this type of pipe. Taking advantage of this shutdown, staff installed a valve for the new CenB-54 service connection, in addition to performing remote field eddy-current inspection of the pipeline. As a result of the coincident visual inspection of the pipeline, several minor mortar repairs were made as well.

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Staff continued dewatering activities on the San Fernando Tunnel. This is in preparation for installation of service connection B-06 for the City of Burbank. Once operational, this service connection will be available to deliver groundwater replenishment supplies. It is currently projected that the tunnel will be substantially dewatered by the middle of May 2006.

### Water System Update

As of April 23, 2006, State Water Project (SWP) in-basin deliveries for calendar year (CY) 2006 were 447 thousand acre-feet (TAF) and include 38 TAF of water from the San Bernardino Valley Municipal Water District/Inland Feeder Interconnection. All deliveries were from CY 2005 carryover, Article 21 and Table-A accounts.

For CY 2006 through April 23, 2006, CRA gross deliveries were 162 TAF, or 24 percent of the current approved gross diversion target of 671 TAF.

Reservoir levels are indicators of water supply conditions of the SWP, CRA and Metropolitan's service area. The following storage levels for key reservoirs reflect monthly data as of April 23, 2006:

	<u>Storage To-Date</u>	<u>Percent of Capacity</u>
<b><u>Metropolitan Reservoirs</u></b>		
Diamond Valley Lake	803,900 AF	99%
Lake Mathews	156,800 AF	86%
Lake Skinner	35,400 AF	81%
<b><u>SWP Reservoirs</u></b>		
Lake Oroville	3.03 MAF	86%
San Luis Reservoir Total	2.03 MAF	100%
San Luis State Share	1.06 MAF	100%
<b><u>Colorado River Reservoirs</u></b>		
Lake Powell	10.9 MAF	45%
Lake Mead	15.1 MAF	58%
<b><u>SDCWA Reservoirs</u></b>		
24-Reservoir Total	372,800 AF	63%

As of April 23, 2006, the San Gabriel Valley Groundwater Basin key well elevation was 245 feet above sea level. At 250 feet and above, spreading of imported water is curtailed.

#### *Sales and Deliveries*

The official final water sales for March 2006 were 108 TAF, which was 10 TAF, or 8 percent, less than the budgeted amount of 118 TAF. The current sales projection for April 2006 is 123 TAF. Sales for April 2005 were 136 TAF, and the record sales for the month of April was 238 TAF, which occurred in 1990.

#### *Precipitation*

For the current water year (October 1, 2005 to September 30, 2006) through April 23, 2006, total precipitation for four Southern California cities and the Eight Station Index (a measure of precipitation in the SWP's watershed) was:

<u>Weather Station</u>	<u>Precipitation</u>	<u>Percent of Average</u>
Los Angeles Civic Center	12.05 inches	85%
Santa Ana (John Wayne Airport)	6.78 inches	57%
San Diego Airport	4.53 inches	45%
Riverside Airport	6.70 inches	72%
Eight Station Index	78.00 inches	178%

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Rainfall for the four Southern California cities has remained below average since the beginning of the current water year; whereas, precipitation for the Eight Station Index has been above average throughout the water year. This trend is expected to continue through September 30 of this year.

For this current water year, the National Weather Service's Colorado River Basin Forecast Center has developed a most probable Lake Powell inflow scenario, which is 11.4 million acre-feet, or 95 percent of average. As of April 23, 2006, precipitation in the Colorado River Basin Watershed was 103 percent of average, and the projected unregulated inflow into Lake Powell was 94 percent of average.

### **Power Update**

In March, Metropolitan supplied 55,080 Megawatt-hours (MWh) of exchange energy to Southern California Edison (SCE). At the end of March, SCE owed Metropolitan 79,595 MWh of exchange energy. Metropolitan continued supplying exchange energy to SCE in April. The SCE exchange energy will be returned to Metropolitan during Summer 2006 when CRA pumping is increased.

During March, DVL generated 1,688 MWh at an average rate of \$45.18/MWh for total revenue of \$76,262. The remaining 15 small hydro generating facilities produced about 32,014 MWh of energy that resulted in approximately \$1.7 million in revenues from the Department of Water Resources (DWR), SCE and Pacific Gas and Electric. There were no requests to curtail pump loads for either DWR or Metropolitan during the month of March.