

## • Water System Operations January 2006 Activity Report

### Summary

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Following is a summary of Water System Operations Group activities for the period following the January 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. During this period, the following sites were recommissioned: Gene Pumping Plant and Reservoir, Black Metal Communications Site, Intake Pumping Plant, Copper Basin Reservoir, Iron Mountain Pumping Plant, Iron Mountain Communications Site, Eagle Mountain Pumping Plant, Hinds Pumping Plant, and Cactus City Communications Site. In addition, during this period, 21 other individual sites operated successfully for over 30 days since their recommissioning and were accepted. Also, Metropolitan's security operators and professional security staff have now been scheduled for comprehensive system training in March.

#### 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 January 30, 2006 were:

	<u>THM Levels</u> (Plant Effluent)		
	4-Week Average	4-Week High	Percent SPW Blends
Mills	21 ppb	24 ppb	100%
Jensen	24 ppb	45 ppb	100%
Diemer	50 ppb	55 ppb	60%
Skinner	47 ppb	53 ppb	44%
Weymouth	42 ppb	50 ppb	60%

The total organic carbon (TOC) four-week average at the Mills influent was 3.2 parts per million (ppm) in January, down from 3.4 ppm reported in December. However, the Mills plant influent TOC steadily increased throughout the month of January due to higher levels of TOC coming from Northern California in the SPW system.

Jensen influent TOC four-week average remained at approximately 3 ppm in January. The Jensen plant was on ozone as the primary disinfectant for the majority of January, except the week of January 23, due to a

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power outage caused by high winds. Diemer and Weymouth plants changed to plant influent chlorination in January to meet required disinfectant contact times. The change in the initial chlorine application point caused the increase in THM values from the Diemer and Weymouth plants. Distribution system THM levels in parts of Orange County and the central pool were as high as 65 ppb, and the 4-week average ranged from 27 to 57 ppb. The Skinner distribution system sites have ranged from 41 to 53 ppb for the 4-week period ending January 30, 2006.

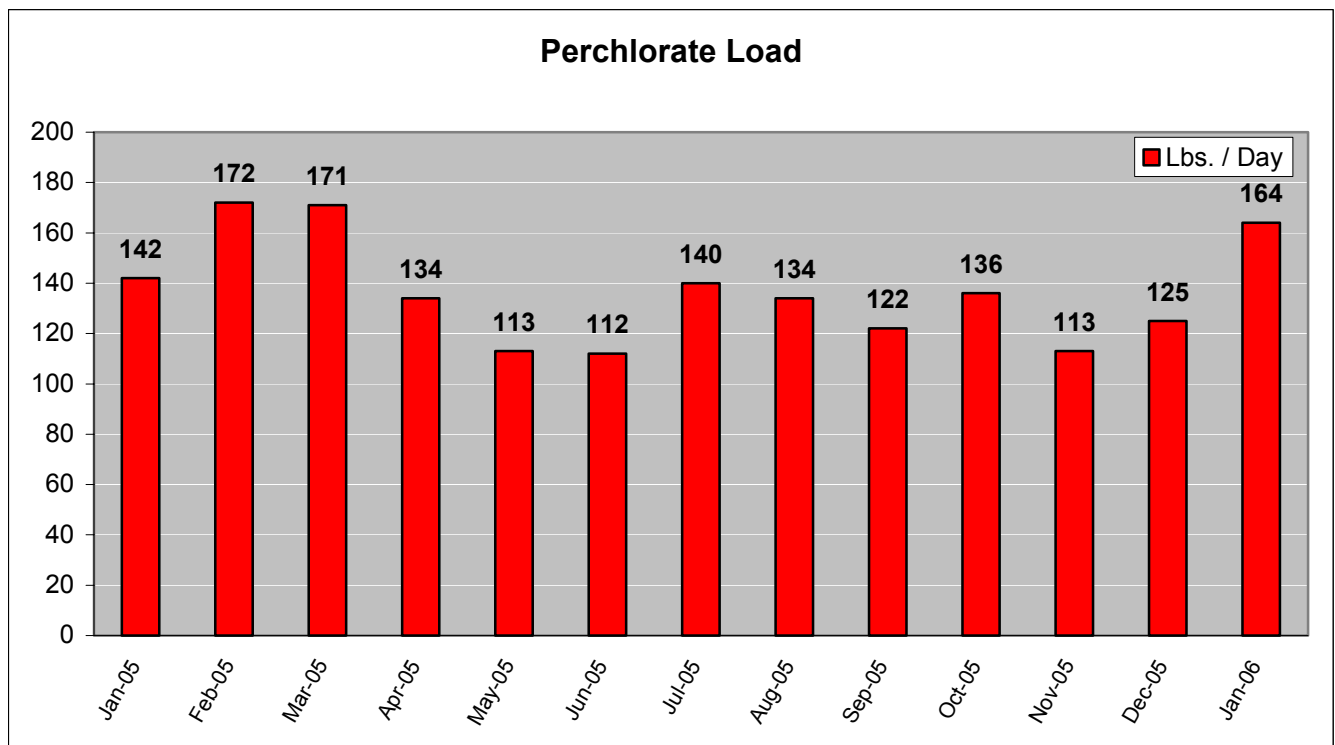
### *Perchlorate*

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 January 2006, perchlorate levels at all monitoring locations were below detection.

Currently, there is no regulatory standard for perchlorate. California Department of Health Services (CDHS) plans to establish an 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 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 January 2006 was calculated to be 164 lbs/day 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.

Chromium 6 concentrations in monitoring well MW 34-100 (located approximately 50 - 65 feet from the river) have continuously increased since April 2005 and ranged from 452 to 837 ppb from April 4, 2005 through January 23, 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 January.

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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 February 2005 through January 2006 twelve-month flow-weighted average TDS levels for the Diemer and Weymouth plants were 464 and 446, respectively. The twelve-month flow-weighted average TDS for Skinner was 515 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 has commenced at the Diemer and Skinner plants. The construction bids for the Mills plant fluoridation facilities have been received and will go to the March Board for award. The bids were opened the first week of February 2006 for the Weymouth facility and will go to the April Board for award. A contract covering the Jensen Plant is pending board approval at the April Board meeting.

### *Shutdowns*

On February 27, 2006, the Mills plant was shutdown for three days. The primary reason for the shutdown was to tie-in the Perris Valley Pipeline. Other work during this three-day period included high voltage maintenance and installation of a chemical diffuser for fluoride.

## **Conveyance & Distribution Update**

Staff was involved in two major shutdowns for this reporting period. The first was a shutdown of the Skinner Treatment Plant, which was originally scheduled for 11 days. In addition to dewatering sections of the Skinner plant itself to allow for contractor-driven work related to construction of Module 7, reaches of the Auld Valley Pipeline and San Diego Pipeline No. 4 were dewatered to permit remote-field eddy current inspections. The shutdown began on February 5 and was completed on February 12, more than three days ahead of schedule. This shutdown involved extensive coordination with member agencies and retailers due to the unusually warm weather experienced during the shutdown.

On February 6, a seven-day shutdown of the East Orange County Feeder No. 2 was initiated. The purpose for this outage was to install a pump bypass around the Coastal Junction Pressure Control Structure in Irvine. The Municipal Water District of Orange County (MWDOC) will be installing the pumping units to enhance water deliveries to two of its service connections during upcoming Diemer Plant outages, the first of which will take place March 13-17. In addition, repairs were made to several valves and other components on the Feeder.

## **Water System Update**

As of February 20, 2006, SWP in-basin deliveries for CY 2006 were 247 thousand acre-feet (TAF) and include 20 TAF of water from the San Bernardino Valley Municipal Water District/Inland Feeder Interconnection. All deliveries were from CY 2005 carryover accounts and Article 21. To date, no Table-A water has been delivered to Metropolitan in CY 2006.

For CY 2006 through February 20, 2006, Colorado River Aqueduct (CRA) gross deliveries were 65 TAF, or 10 percent of the current approved diversion target of 652 TAF.

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Reservoir levels are indicators of water supply conditions of the State Water Project (SWP), CRA and Metropolitan’s service area. The following storage levels for key reservoirs reflect monthly data as of February 20, 2006:

	<u>Storage To-Date</u>	<u>Percent of Capacity</u>
<b><u>Metropolitan Reservoirs</u></b>		
Diamond Valley Lake	801,500 AF	99%
Lake Mathews	138,900 AF	76%
Lake Skinner	36,800 AF	84%
<b><u>SWP Reservoirs</u></b>		
Lake Oroville	2.87 MAF	81%
San Luis Reservoir Total	2.02 MAF	100%
San Luis State Share	1.15 MAF	100%
<b><u>Colorado River Reservoirs</u></b>		
Lake Powell	11.0 MAF	45%
Lake Mead	15.5 MAF	60%
<b><u>SDCWA Reservoirs</u></b>		
24-Reservoir Total	339,900 AF	57%

As of February 20, 2006, the San Gabriel Valley Groundwater Basin key well elevation was 242 feet above sea level. At 250 feet and above, spreading of imported-water is curtailed.

*Sales and Deliveries*

The official final water sales for January 2006 were 152 TAF. This amount was 25 TAF, or 20 percent, more than the budgeted amount of 127 TAF for January 2006. The current sales projection for February 2006 is 152 TAF, which is 42 TAF greater than the budgeted amount for February of this year.

*Precipitation*

For the current water year (October 1, 2005 to September 30, 2006) through February 20, 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	5.04 inches	54%
Santa Ana (John Wayne Airport)	1.96 inches	24%
San Diego Airport	1.53 inches	23%
Riverside Airport	2.54 inches	41%
Eight Station Index	45.90 inches	142%

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 February 20, 2006, precipitation was 105 percent of average, and the projected unregulated inflow into Lake Powell was 101 percent of average.

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### **Power Update**

In January, Metropolitan sold 8,600 Megawatt-hours (MWh) of its excess CRA energy at \$98.10/MWh for a total of \$843,660. Additionally, Metropolitan supplied 14,352 MWh of exchange energy to Southern California Edison (SCE). At the end of January 2006, Metropolitan owed SCE 14,509 MWh of exchange energy. This will be repaid in February as the CRA will stay on a 3-pump flow and surplus energy should remain available from CRA energy sources.

During January, there was no output from the generators at DVL. The remaining 15 small hydro generating facilities produced about 38,155 MWh of energy that resulted in approximately \$2.2 million in revenues from DWR, SCE and Pacific Gas and Electric. There were no requests to curtail pump loads for either DWR or Metropolitan during the month of January.