

- Water System Operations June 2005 Activity Report

Summary

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

Detailed Report

Security Update

Security improvements are proceeding according to schedule and budget. Johnson Controls, Inc. (JCI) continued installation of conduits, cables, and equipment for the security network at Union Station and Diamond Valley Lake (DVL). Installation work at all other project sites has been completed. Metropolitan reviewed and commented on the acceptance plan applicable to Eagle Rock, Union Station, and DVL central station sites. Metropolitan and JCI staff worked together and started individual site acceptance and 30-day operational tests at: Eagle Rock (this site will be tested as a command center at the end of the project once all sites are connected and command center testing is feasible), Weymouth Treatment Plant, Hollywood North Portal Pressure Control Structure (PCS), Carson and Alameda PCS, Deodora PCS, Temescal Power Plant, Venice PCS, Carbon Creek PCS, Irvine Regulating Structure, Covina PCS, Coyote Creek PCS, West Portal San Jacinto Tunnel, Oak Street PCS, Palos Verdes Reservoir, OC-88 Pump Station, Soto Street, and Greg Avenue PCS in June.

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 June 27, 2005, were:

	<u>THM Levels</u>		
	4-week Average	4-week High	Percent SPW Blends
Mills	19 ppb	22 ppb	100%
Jensen	48 ppb	63 ppb	100%
Diemer	44 ppb	52 ppb	50%
Skinner	70 ppb	80 ppb	30%
Weymouth	46 ppb	49 ppb	50%

The total organic carbon (TOC) four-week average at the Mills influent has decreased to 4.0 parts per million (ppm) in June, down from 4.4 ppm reported in May. Jensen influent TOC four-week average has remained at 3.6 ppm in June.

THM levels have decreased as a result of switching to delayed chlorination at the Diemer and Weymouth plants. Distribution system THM levels in parts of Orange County and the central pool were as high as 71 ppb, and the 4-week average ranged from 42 to 56 ppb. The target SPW blend at the Diemer and Weymouth plants is currently 55 and 65 percent, respectively. The Skinner distribution system sites have ranged from 60 to 77 ppb. The Skinner SPW blend is being held to 30 percent or less and the coagulant dose has been increased to 10 mg/L to help reduce THM levels.

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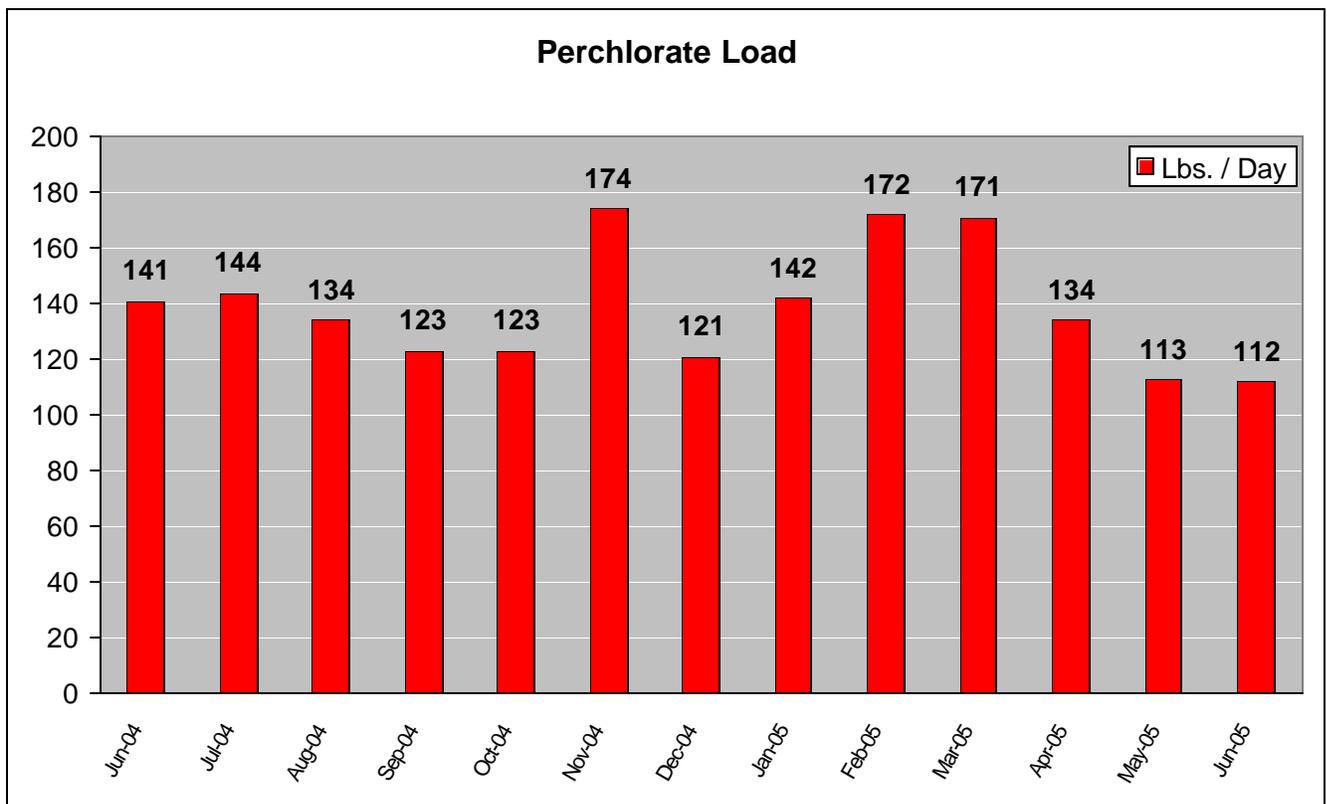
Perchlorate

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 June 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. Except for the Skinner reservoir effluent and the distribution system location SD-7 when the Skinner plant was on lake by-pass in June, no other source waters, treatment plant effluents, or distribution system locations have perchlorate detections above the MRL of 2 ppb.

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 June 2005 was calculated to be 112 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 (located approximately 50 - 65 feet from the river) have ranged from 452 to 560 ppb from April 4 through June 21, 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 located 150 - 165 feet from the river. This new extraction well was completed but is not yet operating.

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pending approval of permits. PG&E is also constructing an on-site treatment plant, which has been treating water since the end of 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 June.

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.

Taste-and-Odor (T&O)

Two copper sulfate treatments, July 14 and July 19, were conducted on the East Branch of the State Water Project (SWP) to manage algae producing methylisoborneol (MIB) and geosmin. Copper was applied to one side of the aqueduct at a time in order to reduce the risk of fish kills. The treatments successfully reduced T&O production, but did not eliminate it. Careful monitoring will continue with additional treatment recommendations as required until the problem is resolved. Lake Silverwood currently has about 11 parts per trillion (ppt) MIB and 6 ppt geosmin throughout the water column.

A T&O producing bloom has developed at Castaic Lake with levels of MIB at 26-38 ppt and geosmin at 10-15 ppt. The lake is highly stratified, thus restricting T&O to the surface at this time. A request for treatment has been made to the Department of Water Resources (DWR), and L.A. Department of Water and Power has been asked to optimize Elderberry release flow rates to minimize mixing of surface water to the hypolimnion.

Total Dissolved Solids (TDS) Levels

The July 2004 through June 2005 twelve-month flow-weighted average TDS levels for the Diemer, Skinner, and Weymouth plants were 459, 482, and 462 ppm, respectively. These levels meet Metropolitan's water quality objectives for TDS.

Conveyance & Distribution Update

Project Activities

Water System Operations continues to work with Engineering to complete the installation of the new and refurbished pumps at service connection OC-88. Four pumps are currently operational and the remaining three units have been set in place and are in the process of having electrical connections and controls installed. Recent efforts with Engineering and the pump vendor to eliminate unplanned outages of the pumps have been largely successful, owing to replacement of some computerized control components. The project continues on schedule.

With recent identification by the DWR of concerns related to the seismic stability of Perris Dam, staff is working with DWR to install a temporary aeration system at the reservoir's outlet tower. Aeration will aid in improving the quality of the water scheduled to be drafted by Metropolitan from the reservoir over the next 2-3 months to enable the desired lowering of the reservoir level.

Water System Update

On May 27, 2005, the current calendar year (CY) SWP allocation was increased from 80 to 90 percent, or 1.7 million acre-feet (MAF). As of July 24, 2005, total SWP in-basin deliveries for the CY were 773,100 acre-feet (AF). These deliveries include 680,700 AF on the East and West Branches and 92,400 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 July 24, 2005, CY Colorado River Aqueduct (CRA) deliveries were 420,000 AF, or 56 percent of the current approved diversion target of 743,000 AF.

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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 July 24, 2005:

Metropolitan Reservoirs	Storage To-Date	Percent of Capacity
Diamond Valley Lake	771,400 AF	96%
Lake Mathews	142,100 AF	78%
Lake Skinner	38,300 AF	87%
State Water Project Reservoirs		
Lake Oroville	3.31 MAF	94%
San Luis Reservoir Total	1.40 MAF	69%
San Luis State Share	0.76 MAF	72%
Colorado River Reservoirs		
Lake Powell	12.5 MAF	51%
Lake Mead	15.3 MAF	56%
SDCWA Reservoirs		
24-Reservoir Total	419,300 AF	70%

As of July 24, 2005, the San Gabriel Valley Groundwater Basin key well elevation was 246 feet above sea level, which is four feet below the level that imported water spreading is allowed.

Sales and Deliveries

The official final water sales for June 2005 were 192 thousand acre-feet (TAF). This amount is 23 TAF, or 14 percent more than the budgeted amount of 169 TAF for the month of June 2005. The current sales projection for July 2005 is 227 TAF.

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 July 24, 2005, water year (October 1, 2004 through September 30, 2005) precipitation to-date was 103 percent of normal, and the projected water year total is 109 percent above normal.

For the current water year through July 24, 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	329%
Santa Ana (John Wayne Airport)	25.18 inches	263%
San Diego Airport	22.50 inches	278%
Riverside Airport	21.20 inches	279%
Eight Station Index	57.00 inches	151%

As of July 24, 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 that was set in 1883-84.

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Power Update

During June, Metropolitan purchased 57,600 Megawatt-hours (MWh) of firm energy from energy traders and utilities throughout the western United States at an average rate of \$31.51 per MWh for a total purchase cost of about \$1.82 million. Metropolitan provided 12,800 MWh of exchange energy to Southern California Edison, resulting in a net 39,690 MWh of exchange energy owed to Metropolitan. Metropolitan will receive this energy before October 1, 2005.

In June, Metropolitan generated 42,529 MWh at its small hydroelectric power plants for total revenue of about \$2.1 million. There was no generation from DVL power plant in June.

In the month of June, DWR was requested to reduce pumping by between 230 MW - 284MW for up to 4 hours on June 30. There were no pump curtailments for Metropolitan in the month of June.