

**MWD**

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

March 3, 1993

To: Board of Directors (Water Problems Committee--Information)
 From: General Manager
 Subject: Water Supply Update

Report

This water supply update reflects conditions as of March 1, 1993. Attached is Water Supply Update No. 12, which graphically summarizes and supplements the information below.

Colorado River Supplies

Metropolitan has received approval from the Bureau of Reclamation to divert Colorado River water (CRW) at full aqueduct capacity in calendar year (CY) 1993. It is projected that 1,192,000 acre-feet of CRW will be diverted. As a result of maintenance work performed during the month, it is estimated that 76,000 acre-feet were diverted in February. Additional periods of reduced flow for required maintenance work will continue in March, including a five-day complete shutdown of the Colorado River Aqueduct scheduled to begin March 23, 1993.

State Water Project Supplies

Metropolitan's allocation of State project water for CY 1993 was increased on February 15, 1993 from 40 percent to 55 percent of our request, or 1,140,000 acre-feet, including delivery to Metropolitan of Desert Water Agency and Coachella Valley Water District allocations. This increase resulted from continued above-average rain and snowfall in the State project watershed. Further increases in our allocation are expected should above-average precipitation continue. The Department of Water Resources (DWR) has approved Metropolitan's request to carry over 191,000 acre-feet of 1992 entitlement water for use in 1993, with the condition that all carryover water be used by April 20, 1993.

This brings our total expected supply to be delivered via State project facilities in CY 1993 to 1,331,000 acre-feet. At this time, no additional water has been purchased by Metropolitan to augment 1993 supplies and it

would appear that additional purchases will not be necessary to meet expected 1993 demands. Metropolitan took delivery of 34,000 acre-feet of State project water in February, and a total of 69,000 acre-feet since January 1. Because of DWR's requirement that all 1992 carryover water be used by April 20, 1993, all State project water delivered since January 1 is 1992 carryover water.

Above average precipitation continued in the State project watershed during February. Precipitation for the month for the Northern Sierra eight-station index was 9.7 inches or 123 percent of average. This brought the season-to-date total to 46.0 inches or 132 percent of average. In addition, snowpack water content in the State project watershed was at 170 percent of average as of March 1, 1993.

The heavy precipitation provided large increases in storage and continued high pumping at Harvey O. Banks Delta Pumping Plant. This high level of pumping continued despite February D-1630 and National Marine Fisheries Service (NMFS) pumping restrictions. As of February 28, 1993, the storage in Lake Oroville was 2,510,000 acre-feet. Total storage in San Luis Reservoir was 1,635,000 acre-feet, with the State portion at 990,000 acre-feet. The rapid increase in volume of stored water in San Luis Reservoir over the last two months raises the possibility that the reservoir will fill. In that event, there is the potential for displacement of 1992 carryover water now stored there. It is intended that 50,000 acre-feet of 1992 carryover water be placed into groundwater storage as provided for by the Semitropic/Metropolitan Water Storage/Exchange Program. With this exchange, it is likely that Metropolitan will use the full 191,000 acre-feet of 1992 carryover water before the April 20 deadline.

1993 Water Supply Balance

The attached table summarizes the current water supply balance for CY 1993. The projected demands are based on adjusted information received from our member agencies. These figures are based on the assumption that Stage I of the Incremental Interruption and Conservation Plan will remain in effect for the remainder of CY 1993. Currently, there is a potential 603,000 acre-foot balance in supplies estimated to be available to Metropolitan in 1993. It is anticipated that a portion of this water will be allocated for cyclic groundwater storage, member agency exchange purposes, as well as implementation of the Semitropic and/or other programs.

Board Committee Assignment

This letter is an information item to the Water Problems Committee because of its authority with regard to policies, sources, and means of importing water required by the District; and policies regarding water conservation, reclamation, reuse, and underground storage of water and the use thereof, pursuant to Administrative Code, Section 2481 (a) and (i).

Recommendation

For information only.

for 
Carl Boronkay

KN:jp

Attachment

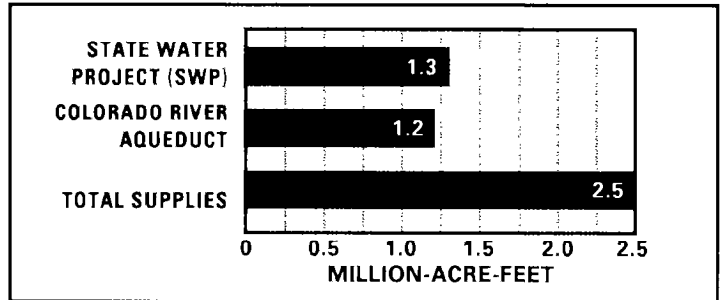
WATER SUPPLY UPDATE

PUBLISHED BY THE OPERATIONS DIVISION

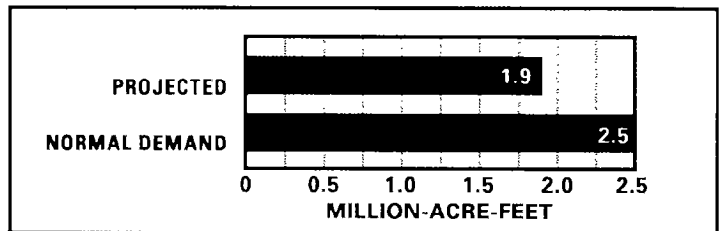
SUMMARY

With the continuation of heavy precipitation throughout the State, on February 24 Governor Wilson declared an end to the drought that began in 1987. Statewide, the water content of the snowpack is now estimated at 170 percent of normal. The Northern Sierra region, which encompasses the State project watershed, also contains 170 percent of the normal water content for this time of the year. Five of the eight stations used to calculate the State project supply have received over 40 inches of precipitation from October 1 through February 25, with the highest amount at Blue Canyon - almost 74 inches. The storage in Lake Oroville has accumulated to over 2.5 MAF, which is 97 percent of the historic average for March 1. Based upon the somewhat lower snowpacks measured on February 1, 1993, DWR had increased the supplies of State project contractors to 55 percent of requests on February 15. Combined with Metropolitan's 1992 carryover water, our total available supply from the State project is now in excess of 1.3 MAF. When added to our Colorado River supply, this represents a total Metropolitan supply of over 2.5 MAF. Demands on our system are expected to be between 1.8 and 1.9 MAF for CY 1993. The Resources, State Project & Conservation, and Operations divisions are currently exploring several avenues to store as much of this balance of State project water as possible for use in future shortage situations. The abundance of locally produced water has significantly reduced sales, and this trend is expected to continue throughout CY 1993. The City of Los Angeles' aqueduct system has about 145 percent of normal water content in its watershed in the Eastern Sierra, and LADWP expects to import over 1.5 times the volume of water available from the Owens Valley in CY 1992. The availability of local water for groundwater replenishment is indicated by the fact that rainfall since July 1 at the Los Angeles Civic Center is over 23.5 inches. The normal for this time of year is 10.5 inches, while the season total for 1991-1992 was only 13.5 inches.

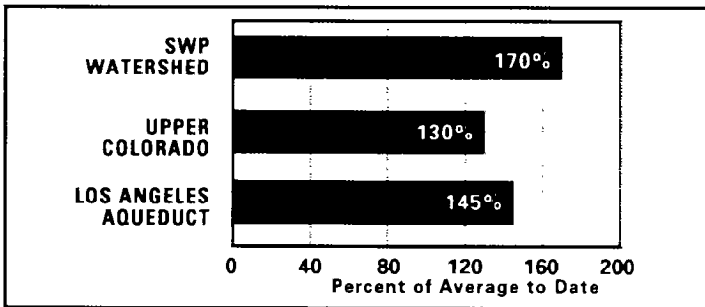
MWD'S 1993 FIRM WATER SUPPLIES



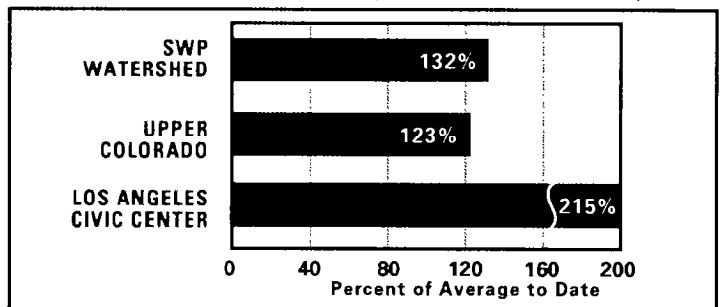
1993 DEMANDS BY MWD MEMBER AGENCIES



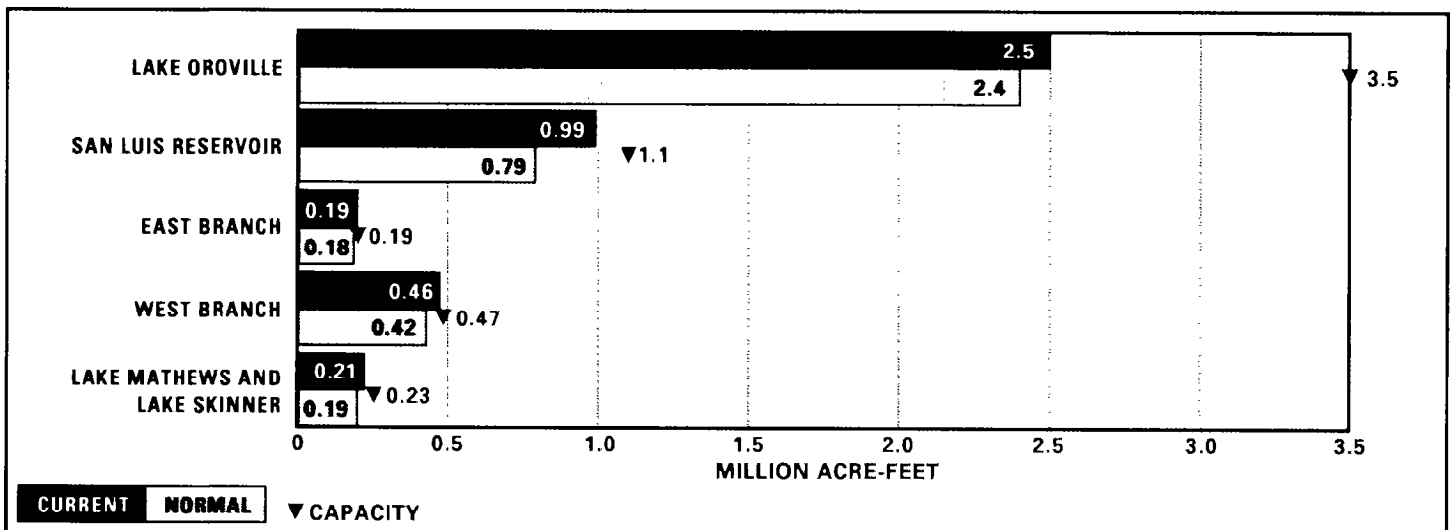
SNOWPACK CONDITIONS (ACCUMULATED PACKED SNOW)



PRECIPITATION LEVELS (RAIN AND SNOWFALL)



RESERVOIR STORAGE



CY 1993 WATER SUPPLY AND BALANCE

CY 1993 Supply

Colorado River Aqueduct	1,192,000 AF
State Water Project (1)	1,331,000 AF
System Losses	-50,000 AF
Total Supply	2,473,000 AF

CY 1993 Demand

Projected Use (2) (3) (4)	1,870,000 AF
Projected 1993 Balance (5)	603,000 AF

Notes:

- (1) -- Includes 191,000 acre-feet of 1992 carryover water and 55 percent of 1993 Metropolitan and DWCV requests.
- (2) -- Stage I effective January 1 to December 31, 1993 and assumes 10 percent conservation.
- (3) -- Includes Discretionary Pool Deliveries and purchases from cyclic storage.
- (4) -- Projections based on adjusted estimates obtained from the member agencies, and actual sales through February.
- (5) -- Balance likely to be used by a combination of:
 - an increase in cyclic groundwater storage deliveries;
 - 1993 Demonstration Local Storage Program with the member agencies;
 - potential delivery to Desert Water Agency and Coachella Valley Water District exchange program;
 - continuation of seasonal storage service deliveries; and
 - implementation of Semitropic and/or other programs.