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**MWD**

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

November 1, 1994

To: Board of Directors (Water Problems Committee -- Information)

From: General Manager

Subject: Water Supply Update

FILED
by the Board of Directors of
The Metropolitan Water District
of Southern California
at its meeting held

NOV - 8 1994

Karen E. Darr
EXECUTIVE SECRETARY

Report

This water supply update reflects conditions as of November 1, 1994. Attached is Water Supply Update No. 2, which graphically summarizes and supplements the information below.

Colorado River Supplies

Metropolitan has received approval from the Bureau of Reclamation (Reclamation) to divert Colorado River water at full aqueduct capacity in calendar year (CY) 1994. It is projected that about 1.3 million acre-feet of CRW will be diverted.

Metropolitan has submitted a request to use 1.3 million acre-feet of Colorado River water in CY 1995. As in recent years, it is expected that California will be permitted to utilize unused Arizona and Nevada apportionments. The CY 1995 annual operating plan for the Colorado River System reservoirs has not yet been approved and transmitted to the Governors of the Colorado River Basin States by the Secretary of the Interior, but such action is expected shortly.

State Water Project Supplies

Metropolitan's State Water Project (Project) allocation for CY 1994 remains at 50 percent of our request, or approximately 1.04 million acre-feet. This amount includes delivery to Metropolitan of Desert Water Agency and Coachella Valley Water District (DWCV) entitlements. After careful analysis of projected supply requirements, Metropolitan, in April and May 1994, turned back a total of 100,000 acre-feet of this allocation to the Project. This, along with a small Water Bank purchase, DWCV's Interruptible Entitlement water, and DWCV's portion of the turned back water, resulted in a total CY 1994 allocation of approximately 943,200 acre-feet.

As of November 1, 1994, the storage in Lake Oroville was 1,579,700 acre-feet. Total storage in San Luis Reservoir was 620,700 acre-feet, with the State portion at 397,000 acre-feet.

Metropolitan, in a letter dated September 30, 1994, requested 2,072,700 acre-feet of Project water for CY 1995. This amount represents the entitlements of Metropolitan and those of DWCV under our exchange program. Since the Department of Water Resources (DWR) has classified CY 1994 as a critically dry year, carryover in Project reservoirs into 1995 is now planned to be much lower than it was this year. When coupled with continuing environmental and water quality constraints on Project operations, the initial allocations to be made this December for CY 1995 are expected to be much lower than the initial allocations for CY 1994. The best estimate of State project water supplies to be approved in December by DWR, assuming no significant supply improvements before December, is in the range of 20 to 35 percent of contractor requests. This represents between 400,000 and 700,000 acre-feet of Project water for Metropolitan. Additionally, DWR has been given advance notice that Metropolitan intends to request carryover of approximately 100,000 acre-feet of its 1994 entitlement water into 1995. To date, DWR has not announced its carryover policy.

Water Supply and Demand Balance

The attached Table 1 and Figure 1 summarizes the projected water supply balance for CY 1994. The projected demands are based on adjusted information received from our member agencies. Based upon this trend in demands, it appears that we can meet all agency requests for CY 1994.

Early projections of CY 1995 demands indicate sales of about 2.0 million acre-feet, based on member agency projections. These projections are reviewed and adjusted by Operations Division staff to account for noted trends in recent history. The attached Table 2 and Figure 2 outlines a potential CY 1995 water supply balance scenario assuming a Project water allocation of 30 percent of Metropolitan's request.

To offset a potential water short fall for CY 1995 and avoid the mandatory stages of the Incremental Interruption and Conservation Plan, Metropolitan, through the proposed 1995 Drought Management Plan, will have the following tools available to meet demands:

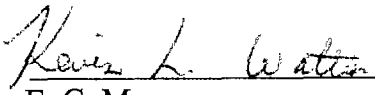
- Suspension of direct spreading, reservoir storage, and cooperative storage deliveries.
- Suspension of Seasonal Storage Service in-lieu deliveries.
- Call on water from various storage programs.

- Participate in State Water Bank and its transfer options. In October 1994, Metropolitan's Board authorized the purchase of up to 100,000 acre-feet in water options from the State Drought Water Bank.
- Reduce Interim Agricultural Water Program deliveries

Recommendation

For information only.

John R. Wodraska
General Manager

for 
E. G. Means
Chief of Operations

Concur:



John R. Wodraska
General Manager

TABLE 1
CY 1994 WATER SUPPLY AND DEMAND BALANCE

CY 1994 Supply

Colorado River Aqueduct	1,303,700 AF
State Project Water Allocation	943,200 AF
Local Supplies (1)	<u>14,600 AF</u>
 Total Supply	 2,261,500 AF

CY 1994 Demand

Projected Use (2) (5)	1,969,000 AF
Net to Storage (3) (4)	154,000 AF
System Losses	<u>42,000 AF</u>
 Total Projected Deliveries	 2,165,000 AF
 <u>Balance</u>	 96,500 AF

Notes:

- (1) -- Does not include Arlington Desalter, West Basin Desalter or Local Project Program projections.
- (2) -- Assumes 10- percent voluntary conservation.
- (3) -- Deliveries into storage not recorded as sales.
- (4) -- Includes surface reservoirs, Cooperative Storage, Cyclic Storage and other Exchanges.
- (5) -- Includes initial delivery adjustments related to carry-over of 1994 State Water Project entitlement water into 1995.

FIGURE 1

SUPPLY AND DEMAND BALANCE FOR CALENDAR YEAR 1994 WITH ANTICIPATED CRA DIVERSIONS

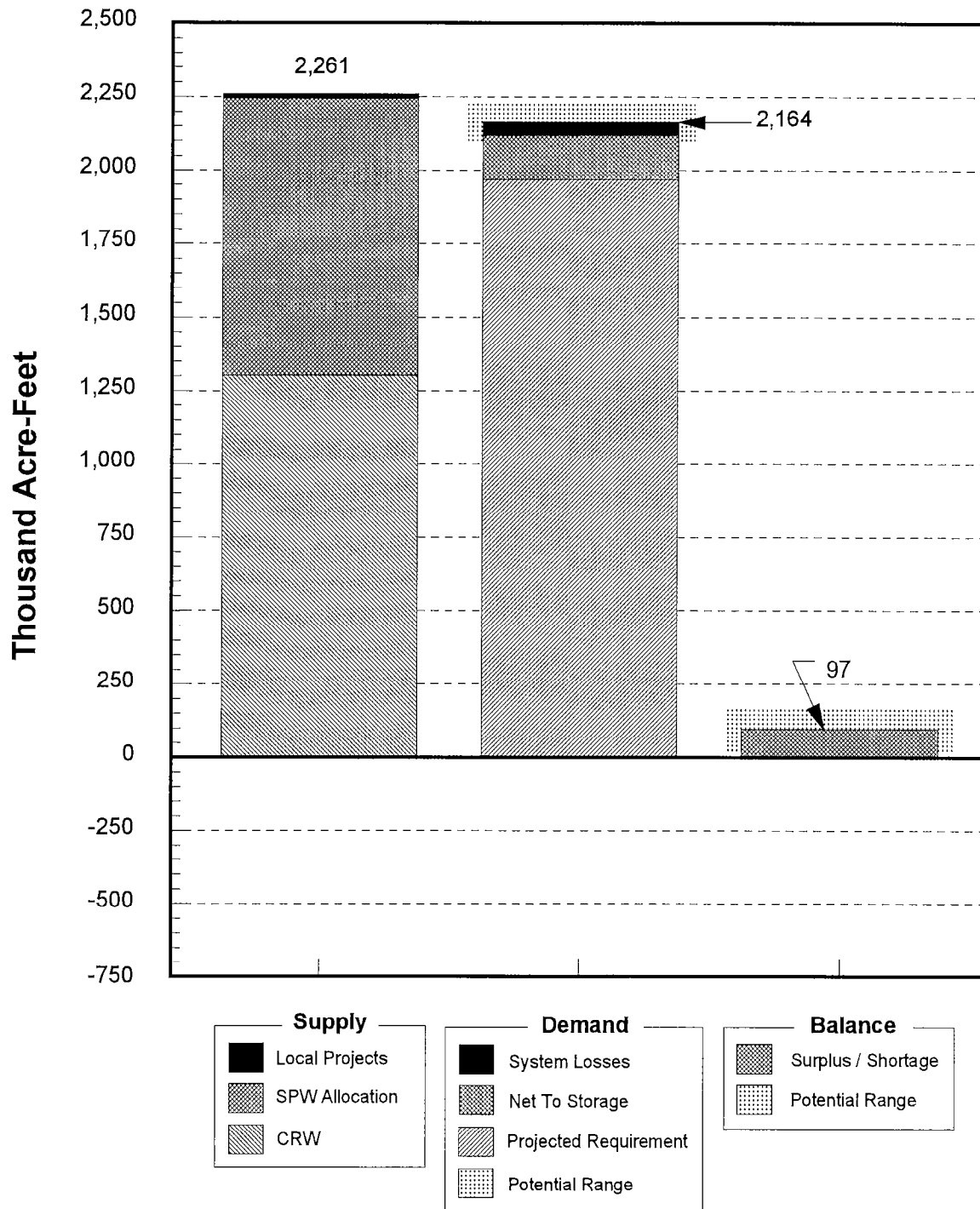


TABLE 2
CY 1995 WATER SUPPLY AND DEMAND BALANCE
ASSUMING 30% SWP ALLOCATION

CY 1995 Supply Scenario

Colorado River Aqueduct	1,300,000 AF
30% State Project Water Allocation (1)	622,000 AF
Local Projects (2)	20,000 AF
Other (3)	<u>18,000 AF</u>
 Total Supply	 1,960,000 AF

Projected CY 1995 Demands

Projected Use (4) (5)	2,020,000 AF
Net to Storage (6)	-9,000 AF
System Losses	<u>36,000 AF</u>
 Total Projected Deliveries	 2,047,000 AF

Balance (7)

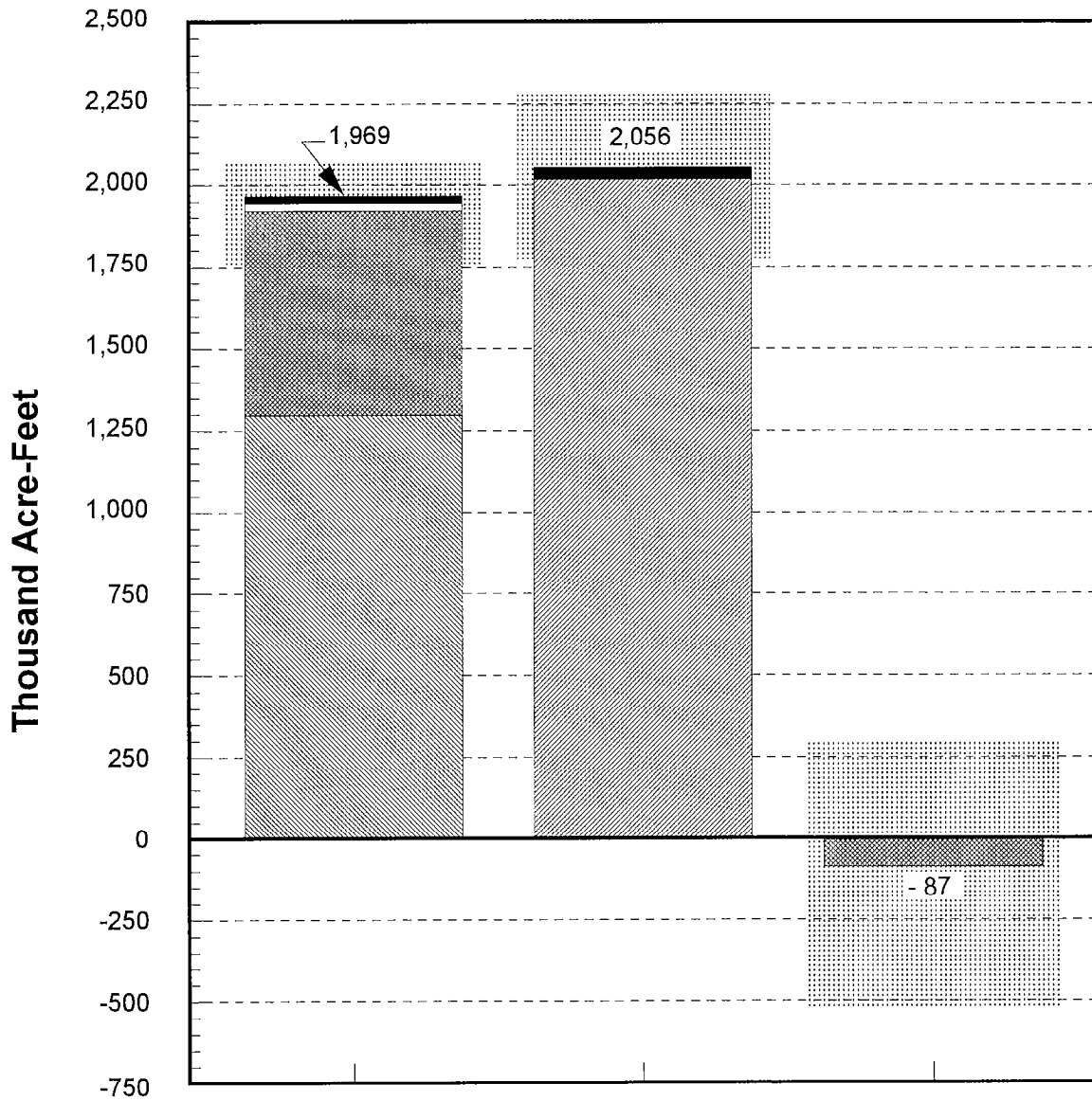
Supplies-Demands = -87,000 AF

Notes:

- (1) -- Does not include potential SPW carryover.
- (2) -- Does not include Arlington Desalter, West Basin Desalter or other non-sale Local Project projections.
- (3) -- Exchange agreement with LADWP for West Branch Shutdown
- (4) -- Assumes 10 percent voluntary conservation.
- (5) -- Includes Local Project Sales
- (6) -- Includes surface reservoirs.
- (7) -- Potential shortfall can be met by potential SPW carryover and/or implementation of the Drought Management Plan without mandatory IICP stages.

FIGURE 2

SUPPLY AND DEMAND BALANCE FOR CALENDAR YEAR 1995 WITH ANTICIPATED CRA DIVERSIONS AND A 30% SPW ALLOCATION



Supply

- Local Projects
- Net From Storage
- SPW Allocation
- CRW
- Potential Range

Demand

- System Losses
- Projected Requirement
- Potential Range

Balance

- Surplus / Shortage
- Potential Range

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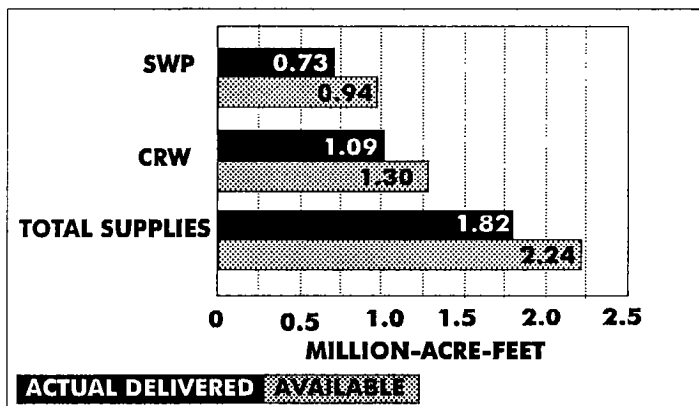
WATER SUPPLY UPDATE

PUBLISHED BY THE OPERATIONS DIVISION

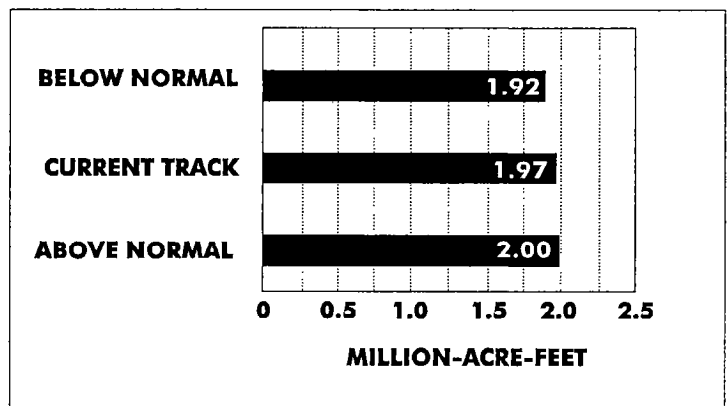
SUMMARY

Based on the latest November and December 1994 demand and delivery projections, Metropolitan will have about 100,000 acre-feet of State project carryover water into 1995. However, the Department of Water Resources has yet to announce how they intend to administer this carryover water. Projections of available State project water supplies for 1995 remain at 20 to 35 percent of contractor requests while the Colorado River water projection remains at the aqueduct's full capacity of about 1.3 million acre-feet (MAF). This represents a best estimate of total imported supplies of 1.7 to 2.0 MAF (excluding potential carryover water, water bank purchases and exchanges). Pending monthly reviews of the supply situation, Seasonal Storage Service deliveries are expected to continue through December 31, 1994. Facing projected 1995 imported water demands at 2.0 MAF and a potential supply shortfall, Metropolitan is continuing its efforts to develop contingency plans to utilize all available operating tools such as storage programs, reducing non-firm deliveries, and acquiring water transfers to avoid the mandatory stages of the Incremental Interruption and Conservation Plan.

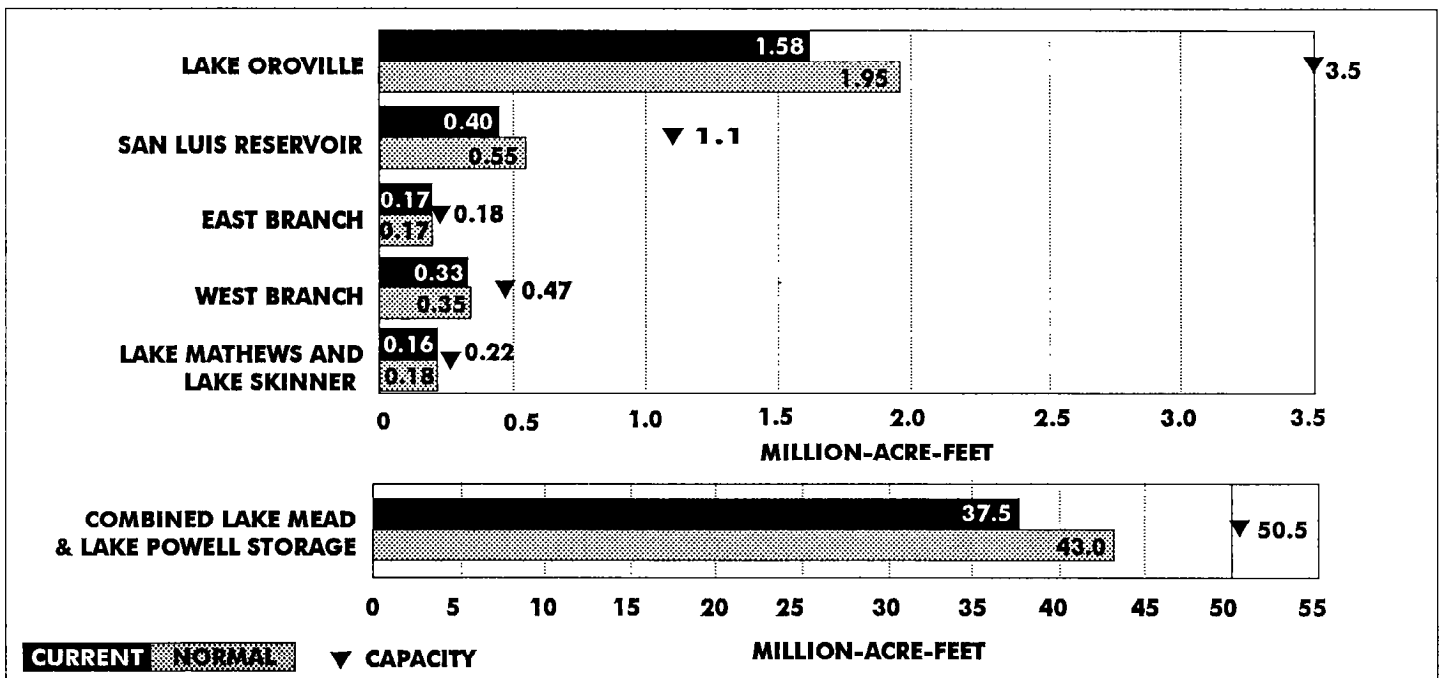
CALENDAR YEAR 1994 SUPPLIES



1994 PROJECTED DEMANDS BY MWD MEMBER AGENCIES



RESERVOIR STORAGE



SWP: State Water Project, CRW: Colorado River Water