5.0 SUPPLY AND DEMAND COMPARISON PROVISIONS

5.1 Supply and Demand Comparison during Normal Years

The District receives 100 percent of its water supply from the West Basin MWD. Therefore, the available supply from the West Basin MWD must be equal to the projected water demands for the District in order for the District's supply to be 100% reliable for its customers.

Table 5.1 shows a sufficient supply to meet the demand of the District through 2030. The West Basin MWD's Urban Water Management Plan projects a 100% reliable supply of water for all retail agencies served by West Basin MWD for the next 25 years. This assumption is assured through Metropolitan Water District's WSDM Plan.

Table 5.1 Projected Normal Year Water Supply and Demand Comparison

Projected Normal Water Year						
	2005	2010	2015	2020	2025	2030
Supply total	11,587	11,867	12,803	13,765	14,697	15,557
Demand total	9,941	11,302	12,194	13,110	13,997	14,816
Difference	1,646	565	610	655	700	741
Difference as % of Supply	14.2%	4.8%	4.8%	4.8%	4.8%	4.8%
Difference as % of Demand	16.6%	5.0%	5.0%	5.0%	5.0%	5.0%

*these values do not include recycled water

5.2 Supply and Demand Comparison during Single and Multiple-Dry Year(s)

Tables 5.2 through 5.7 present the projected water demands for single and multiple-dry water year(s) compared to the available supply. The projected single and multiple-dry year demands were determined from historical data analyzed by the West Basin MWD and Metropolitan Water District and confirmed by the District's records. The data shows that due to a lack of precipitation during a drought, there is normally an increase of 4 to 8 percent in water demands.

Table 5.2 Single Dry Water Year Supply and Demand

Projected Single Dry Water Year	2005	2010	2015	2020	2025	2030
Supply total	11,587	11,867	12,803	13,765	14,697	15,557
Demand total	10,962	11,867	12,803	13,765	14,697	15,557
% of Normal Year Demand	105%	105%	105%	105%	105%	105%
Difference	625	0	0	0	0	0
Difference as % of Supply	5.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Difference as % of Demand	5.7%	0.0%	0.0%	0.0%	0.0%	0.0%

Table 5.3 Multiple Dry Water Year Supply and Demand occurring after 2005

Projected Multiple-Dry Water Years	2006	2007	2008
Supply total	11,587	11,587	11,587
Demand total	10,438	10,339	10,736
% of Normal Year Demand	105%	104%	108%
Difference	1,149	1,248	851
Difference as % of Supply	9.9%	10.8%	7.3%
Difference as % of Demand	11.0%	12.1%	7.9%

Table 5.4 Multiple Dry Water Year Supply and Demand occurring after 2010

Projected Multiple-Dry Water Years	2011	2012	2013
Supply total	11,867	11,867	11,867
Demand total	11,867	11,754	12,206
% of Normal Year Demand	105%	104%	108%
Difference	0	113	-339
Difference as % of Supply	0.0%	1.0%	-2.9%
Difference as % of Demand	0.0%	1.0%	-2.8%

Table 5.5 Multiple Dry Water Year Supply and Demand occurring after 2015

Projected Multiple-Dry Water Years	2016	2017	2018
Supply total	12,803	12,803	12,803
Demand total	12,803	12,681	13,169
% of Normal Year Demand	105%	104%	108%
Difference	0	122	-366
Difference as % of Supply	0.0%	1.0%	-2.9%
Difference as % of Demand	0.0%	1.0%	-2.8%

Table 5.6 Multiple Dry Water Year Supply and Demand occurring after 2020

Projected Multiple-Dry Water Years	2021	2022	2023
Supply total	13,765	13,765	13,765
Demand total	13,765	13,634	14,159
% of Normal Year Demand	105%	104%	108%
Difference	0	131	-394
Difference as % of Supply	0.0%	1.0%	-2.9%
Difference as % of Demand	0.0%	1.0%	-2.8%

Table 5.7 Multiple Dry Water Year Supply and Demand occurring after 2025

Projected Multiple-Dry Water Years	2026	2027	2028
Supply total	14,697	14,697	14,697
Demand total	14,697	14,557	15,117
% of Normal Year Demand	105%	104%	108%
Difference	0	140	-420
Difference as % of Supply	0.0%	1.0%	-2.9%
Difference as % of Demand	0.0%	1.0%	-2.8%

To address water shortages in the third year of a multiple-dry water year or in the event of a reduction in the available water supply from the West Basin MWD, the County of Los Angeles Board of Supervisors has adopted a water shortage contingency plan known as the Phased Water Conservation Plan (PWCP). The purpose of the PWCP is to reduce the overall water demands throughout the District and the Marina del Rey Water System. Section 7 of this report gives further details of the PWCP.

5.3 Water Quality of West Basin MWD's Imported Water Supplies

The West Basin MWD's imported water supply comes from the State Water Project (SWP) and Colorado River via MWD pipelines and aqueducts. MWD tests its water for microbial, organic, inorganic, and radioactive contaminants as well as for pesticides and herbicides. In coordination with its 26 member agencies, MWD added new security measures in 2001 and continues to upgrade and refine procedures to ensure good water quality. Changes have included an increase in the number of water quality tests conducted each year (more than 300,000) as well as contingency plans related to the Office of Homeland Security's multi-colored tiered risk alert system.

MWD also has one of the most advanced laboratories in the country where water quality staff collects data, performs tests, reviews results, prepares reports, and researches other treatment technologies. Although not required, MWD monitors and samples constituents in its water supplies that are not currently regulated but have captured scientific and/or public interest. MWD has a strong record of identifying those water quality issues that are of most concern and has identified necessary water management strategies to minimize the impact of these issues on water supplies. Part of MWD's strategy is to support programs that address water quality concerns related to both the SWP and Colorado River supplies. Some of the programs and activities include:

• **CALFED Program** – This program coordinates several SWP water feasibility studies and projects that include:

1. A feasibility study on water quality improvement in the California Aqueduct.
2. The conclusion of feasibility studies and demonstration projects under the Southern California-San Joaquin Regional Water Quality Exchange Project.
3. DWR's Municipal Water Quality Investigations Program and the Sacramento River Watershed Program. Both of these programs address water quality problems in the Bay-Delta and Sacramento River watershed.

• **Delta Improvement Package** – MWD, in conjunction with DWR and the U.S. Geologic Survey, has completed modeling efforts of the San Francisco Bay Delta to determine if levee modifications at Franks Tract would reduce ocean salinity concentrations in water exported from the Delta. Currently, tidal flows trap high saline water in this tract. By constructing levee breach openings and flow control structures, it is believed saline intrusion can be reduced. This would significantly reduce total dissolved solids and bromide concentrations in water that is diverted from the Delta into the California Aqueduct.