

Appendix I

Demand Projections for High and Low Conservation Assumptions

In the Mojave Water Agency demand forecast model, three possible outcomes in per-capita use were evaluated for the Single-Family Residential use sector, based upon a range of possible conservation levels, as described in Section 6.4. These SFR demand forecasts were then incorporated into regional demand projections for MWA. 2010 SFR use averaged 152 gallons per capita per day (GPCD) in the Mojave Basin Area and 113 GPCD in the Morongo Area. Recognizing the potential for additional conservation in the SFR sector, three possibilities were developed to book-end the possible range in future SFR GPCD based upon varying levels of conservation:

1. No conservation beyond the year 2010: GPCD remains flat at the 2010 level (152 GPCD in the Mojave Basin and 113 GPCD in the Morongo Area). This represents the high end of the range.
2. Extreme conservation on a regional basis: GPCD in the Mojave Basin decreases by 2020 to the current Morongo Area level of 113 GPCD, and GPCD in Morongo decreases 5 percent (to 107 GPCD). This represents the low end of the range.
3. Moderate conservation. Halfway between the high end of the range and the low end of the range as defined above (133 GPCD by 2020 for Mojave and 110 GPCD by 2020 for Morongo).

The regional demand projection included in Chapter 6 assumes moderate conservation is achieved in the SFR use sector. To be conservative, the other two scenarios were also evaluated and are included below.

With no conservation (no reduction in SFR GPCD beyond the year 2010), available water supplies are sufficient to meet regional demand projections beyond the year 2035. Table I-1 represents the available water supplies and demands under this scenario through 2035.

TABLE 11
MWA Summary of Current and Planned Water Supplies (AFY)
with No Single-Family Residential Conservation Beyond 2010

Water Supply Source	2010	2015	2020	2025	2030	2035
Existing Supplies						
Wholesale (Imported)						
SWP ^(a)	49,680	51,480	53,880	53,880	54,778	54,778
Local Supplies ^(b)						
Net Natural Supply	59,973	59,973	59,973	59,973	59,973	59,973
Agricultural Depletion from Storage ^(c)	3,492	3,946	4,125	4,283	4,434	4,577
Return Flow ^(d)	61,593	68,998	74,916	80,871	86,826	92,780
Wastewater Import ^(e)	5,304	5,397	5,491	5,789	6,087	6,385
Total Existing Supplies	180,042	189,794	198,385	204,796	212,098	218,493
Projected Demands ^(f)	150,632	165,679	177,750	189,888	202,027	214,166

Notes:

Source is MWA's 2010 UWMP, Table E-1. Return Flows do not match MWA's 2010 UWMP because the minimal producers for the Baja and Centro subareas have been refined by MWA's Minimal Producer Study, completed February 2011. Also, for the Centro Subarea, revisions have been made to GSWC - Barstow 2005 through 2010 water year usages (per the GSWC-Barstow 2010 UWMP) that affect the return flows for that Subarea.

- (a) Assumes 60% of Table A amount as the long-term supply until 2029 and then assume 61% in 2029 and after, based on the California Department of Water Resources 2009 contractor Delivery Reliability Report for MWA.
- (b) Source: MWA's demand forecast model.
- (c) Refer to Section 6.10.4 for an explanation of this supply.
- (d) Refer to Section 6.10.3 for an explanation of this supply.
- (e) Refer to Section 6.10.2 for an explanation of this supply.
- (f) See Table 6-3 in this report, assuming "no" conservation.

With extreme conservation, available water supplies are sufficient to meet regional demand projections well past the year 2035. Table H2 represents available water supplies and demands under this scenario through 2035.

TABLE H2
MWA Summary of Current and Planned Water Supplies (AFY)
with Extreme Single-Family Residential Conservation Beyond 2010

Water Supply Source	2010	2015	2020	2025	2030	2035
Existing Supplies						
Wholesale (Imported)						
SWP ^(a)	49,680	51,480	53,880	53,880	54,778	54,778
Local Supplies ^(b)						
Net Natural Supply	59,973	59,973	59,973	59,973	59,973	59,973
Agricultural Depletion from Storage ^(c)	3,492	3,946	4,125	4,283	4,434	4,577
Return Flow ^(d)	61,593	65,104	66,215	71,144	76,056	80,953
Wastewater Import ^(e)	5,304	5,397	5,491	5,789	6,087	6,385
Total Existing Supplies	180,042	185,900	189,684	195,069	201,328	206,666
Projected Demands ^(f)	150,632	157,784	160,095	170,173	180,220	190,234

Notes:

Source is MWA's 2010 UWMP, Table E-2. Return Flows do not match MWA's 2010 UWMP because the minimal producers for the Baja and Centro subareas have been refined by MWA's Minimal Producer Study, completed February 2011. Also, for the Centro Subarea, revisions have been made to GSWC - Barstow 2005 through 2010 water year usages (per the GSWC-Barstow 2010 UWMP) that affect the return flows for that Subarea.

- (a) Assumes 60% of Table A amount as the long-term supply until 2029 and then assume 61% in 2029 and after, based on the California Department of Water Resources 2009 contractor Delivery Reliability Report for MWA.
- (b) Source: MWA's demand forecast model.
- (c) Refer to Section 6.10.4 for an explanation of this supply.
- (d) Refer to Section 6.10.3 for an explanation of this supply.
- (e) Refer to Section 6.10.2 for an explanation of this supply.
- (f) See Table 6-3 in this report, assuming "extreme" conservation.