



Chapter 6

Water Demand

Management Measures

CHAPTER 6.0: DEMAND MANAGEMENT MEASURES

6.1 DEMAND MANAGEMENT MEASURE IMPLEMENTATION

The Compton Municipal Water Department (CMWD) currently implements several Demand Management Measures (DMM) through California Urban Water Conservation Council's (CUWCC) Best Management Practices (BMP) program. Table 6.1-1 details the implementation status of each Demand Management Measure.

Table 6.1-1: Implementation of Demand Management Measures			
Demand Management Measure	Implemented	Planned for Implementation	Not Implemented
1) Water Survey Programs for Residential Customers	√		
2) Residential Plumbing Retrofit	√		
3) System Water Audits, Leak Detection, and Repair	√		
4) Metering with Commodity Rates	√		
5) Large Landscape Conservation Programs and Incentives	√		
6) High-Efficiency Washing Machine Rebate Programs	√		
7) Public Information Programs	√		
8) School Education Programs	√		
9) Commercial, Industrial, and Institutional Programs	√		
10) Wholesale Agency Programs			√ (Not Applicable)

Table 6.1-1: Implementation of Demand Management Measures

Demand Management Measure	Implemented	Planned for Implementation	Not Implemented
11) Conservation Pricing	√		
12) Water Conservation Coordinator	√		
13) Water Waste Prohibition	√		
14) Residential ULFT Replacement Programs	√		

6.1.1 Water Survey Programs for Residential Customers

Since 1995, in cooperation with NACWA, NACRSD, and the local energy utilities, the CMWD has offered free residential water use surveys to single-family and multi-family customers. Surveys are conducted upon customer request, and are encouraged for the top 20 percent of water users. In the future, CMWD will continue to offer surveys as requested.

6.1.2 Residential Plumbing Retrofit

Low-flow showerheads are distributed by CMWD on a continual basis, predominantly during Water Awareness Month. Table 6.1-2 details historic showerhead distribution for CMWD.

Table 6.1-2: Residential Plumbing Retrofit by CMWD			
Fiscal Year Ending in June of	Number of Single-Family Low-Flow Showerheads Installed	Number of Multiple-Family Low-Flow Showerheads Installed	Actual Water Savings (AFY)
1995	300	150	3
1996	300	150	6
1997	300	150	8
1998	300	150	11
1999	300	150	14
2000	300	150	17
2001	400	175	20
2002	400	175	24
2003	400	175	28
2004	500	200	32
2005	500	200	36
Totals	4000	1825	199

The water savings were calculated based on an estimated 5.56 GPD per device water savings. Water savings take into account devices installed in previous years. Projections for participation in the Residential Plumbing Retrofit program by CMWD are featured in Table 6.1-3. The installations are projected to remain at their current value.

Table 6.1-3: Projected Residential Plumbing Retrofit by CMWD			
Fiscal Year Ending in June of	Number of Single-Family Low-Flow Showerheads to be Installed	Number of Multiple-Family Low-Flow Showerheads to be Installed	Actual Water Savings (AFY)
2006	500	200	41
2007	500	200	45
2008	500	200	49
2009	500	200	54
2010	500	200	58

6.1.3 System Water Audits, Leak Detection, and Repair

As part of the utility operations, CMWD conducts system water audits, meter calibration, leak detection, and repair to ensure that interconnections are functional and to minimize unaccounted for water losses. CMWD has surveyed an average of 1,500 gate valves and 10 miles of main and laterals per year on a continual basis. CMWD staff are trained at American Water Works Association (AWWA) sponsored training programs to gain an understanding of how to maximize the quality of utility performance.

Table 6.1-4: System Water Audits, Leak Detection, and Repair	
Year	Miles of Distribution Lines Surveyed
2001	10
2002	10
2003	10
2004	10
2005	10

The projected system water audits are featured in Table 6.1-5. The projected values are calculated based on historical trends.

Table 6.1-5: Projected System Water Audits, Leak Detection, and Repair	
Year	Miles of Distribution Lines to be Surveyed
2006	10
2007	10
2008	10
2009	10
2010	10

6.1.4 Metering with Commodity Rates

CMWD has meters in place for all of its customer sectors, including separate meters for single-family residential, commercial, large landscape, and institutional/governmental facilities. Monthly meter charges are allotted based upon a City commodity rate per hundred cubic feet of water. It has been the policy of CMWD to separately meter fire sprinkler systems. CMWD will continue to install and read meters on all new services, and will continue to conduct its meter calibration and replacement program.

6.1.5 Large Landscape Conservation Programs and Incentives

CMWD partners with the local fire department, nurseries, landscape designers, contractors, and horticulture growers to educate landowners and promote water efficient landscaping. To improve water use efficiency at public landscapes and greenbelts, CMWD maintains strategic relationships with the school district and parks department. CIMIS-based controllers with soil moisture sensors are also used at all City of Compton parks.

6.1.6 High-Efficiency Washing Machine Rebate Programs

Metropolitan coordinates a High Efficiency Clothes Washer (HECW) rebate program on behalf of its member agencies to include the City of Compton. Beginning in 1995, Metropolitan has partnered with agencies including Southern California Edison, and CALFED to offer monetary

incentives to customers for the purchase of water saving washing machines. This program has resulted in more than 93,000 HECW distributions to date.

6.1.7 Public Information Programs

CMWD utilizes several methods to promote water conservation and resource efficiency. CMWD distributes information to the public through bill inserts, brochures, paid advertising, and special events held throughout the year. In 1999, CMWD modified water bills to demonstrate daily water consumption (in GPD). The bills provide a comparison of each customer's water consumption in the previous year to that in the current year for the same billing cycle.

6.1.8: School Education Programs

CMWD works with the local school district to educate students about water conservation and resource efficiency. Programs are targeted to educate students and encourage active involvement in water conservation.

An ULFT distribution program is coordinated with local high schools that enables students to attend a workshop on water conservation and leadership. In turn, the students act as team leaders that educate and encourage neighbors and parents to replace their current utilities with low flush toilets. The program also raised \$15.00 for the school per toilet replacement.

An additional program, targeted for students in grades one through five, is a poster contest held during Water Awareness Month. Elementary school students are encouraged to design a poster that promotes water conservation and awareness. CMWD provides posters, workbooks, and educational materials about water conservation for the contest.

Metropolitan also coordinates school education programs for the Southern California region. Several different programs are targeted at different grade levels ranging between K – 12. These programs educate students about the water cycle, supply and distribution, conservation, ethics, water quality, geography, and careers in water.

6.1.9: Commercial, Industrial, and Institutional Programs

CMWD has identified all large commercial customers within its service area and is encouraging them to take advantage of recycled water where available. Most commercial sites within CMWD are small retail outlets with a single restroom, as with all customers within CMWD; they are encouraged to repair any fixtures that may be wasting water (e.g. running toilets or sinks). CMWD's planning department reviews the building plans to determine the proper meter size determined by Uniform Plumbing Code (UPC) fixture units, and line size for any new residential or commercial construction. CMWD also requires the use of water efficient fixtures before a permit is issued to a new customer. There is an annual review of customers' water use and CMWD also offers on-site follow-up evaluations to customers, to assist in the compliance with these programs. CMWD is also looking into offering rebates for commercial retrofit devices via Metropolitan.

6.1.10: Wholesale Agency Programs

The Metropolitan Water District (MWD) is the wholesale agency for CMWD. This Demand Management Measure is therefore not applicable to CMWD, as they are not classified as a wholesale agency.

6.1.11: Conservation Pricing

CMWD has a fixed bimonthly service charge, based upon meter size and usage for all customer sectors. During rationing situations such as in the drought years, CMWD utilizes a block rate structure to encourage water conservation. Usage above the water budget is billed at a higher rate equivalent to the penalties imposed on CMWD by Metropolitan for usage above the directed reduction.

6.1.12: Water Conservation Coordinator

CMWD's water conservation coordinator is a function performed for the most part by a combination of existing water department staff working in conjunction with Metropolitan and the school districts. CMWD stresses water conservation via distribution of conservation handouts and information booths at various community events. CMWD has continued to survey the institutions and educators on the number of programs, materials, and attendance at water conservation activities.

6.1.13: Water Waste Prohibition

CMWD adopted a "Water Waste Prohibition," by Ordinance Number 1851 on March 12, 1991, which is actively enforced in drought situations. To enforce Ordinance 1851, CMWD will issue warnings and subsequent citations to customers exceeding the conservation constraints. Flow-restricting devices may also be installed for non-complying customers.

6.1.14: Residential ULFT Replacement Programs

In association with Metropolitan, CMWD participates in an ultra-low flush toilet (ULFT) replacement program. The program began in 1995, and offers rebates to existing customers to help improve water use efficiency. Table 6.1-24 below demonstrates the ULFT replacements made since 1999. Old toilets that are returned to the CMWD are recycled and used as crushed aggregate road base throughout California.

Table 6.1-24: Toilets Replaced						
FY 99/00	FY 00/01	FY 01/02	FY 02/03	FY 03/04	FY 04/05	Total For All Fiscal Years
0	1000	0	0	1000	0	2000

Table 6.1-24: Projected Toilets to be Replaced						
FY 05/06	FY 06/07	FY 07/08	FY 08/09	FY 09/10	Total For All Fiscal Years	
0	1000	0	0	1000	4000	