

6

DEMAND MANAGEMENT MEASURES

6.1 DEMAND MANAGEMENT MEASURE IMPLEMENTATION

Urban Water Management Planning Act Requirement:

10631 (f) (1) and (2) (Describe and provide a schedule of implementation for) each water demand management measure that is currently being implemented, or scheduled for implementation, including the steps necessary to implement any proposed measures, including, but not limited to, all of the following: (A) water survey programs for single-family residential and multifamily residential customers; (B) residential plumbing retrofit; (C) system water audits, leak detection, and repair; (D) metering with commodity rates for all new connections and retrofit of existing connections; (E) large landscape conservation programs and incentives; (F) high-efficiency washing machine rebate programs; (G) public information programs; (H) school education programs; (I) conservation programs for commercial, industrial, and institutional accounts; (J) wholesale agency programs; (K) conservation pricing; (L) water conservation coordinator; (M) water waste prohibition; (N) residential ultra-low-flush toilet replacement programs

10631 (f)(3) A description of the methods, if any, that the supplier will use to evaluate the effectiveness of water demand management measures implemented, or described under the plan

10631 (f)(4). An estimate, if available, of existing conservation savings on water use within the supplier's service area, and the effect of the savings on the supplier's ability to further reduce demand

10631 (g) An evaluation of each water demand management measure listed in paragraph (1) of subdivision (f) that is not currently being implemented or scheduled for implementation. In the course of the evaluation, first consideration shall be given to water demand management measures, or combination of measures, that offer lower incremental costs than expanded or additional water supplies. This evaluation shall do all of the following: (1) take into account economic and noneconomic factors, including environmental, social, health customer impact,

and technological factors; (2) Include a cost-benefit analysis, identifying total benefits and total costs; (3) Include a description of funding available to implement any planned water supply project that would provide water at a higher unit cost; (4) Include a description of the water supplier’s legal authority to implement the measure and efforts to work with other relevant agencies to ensure the implementation of the measure and to share the cost of implementation

The City of Paramount works with the Central Basin Municipal Water District (CBMWD) to implement water conservation techniques to reduce the total demand of water throughout the City and CBMWD. Together, the City and CBMWD implement the 13 required Demand Management Measures (DMMs) within the City (DMM 10 is not required as the City is not a wholesale agency). CBMWD was an early signatory to the California Urban Water Conservation Council (CUWCC) Memorandum of Understanding (MOU) regarding Urban Water Conservation in California. CUWCC represents a diverse group of water supply agencies dedicated to establishing guidelines toward implementing conservation measures and managing supply demands. The following table summarizes the BMPs/DMMs:

Table 6.1.1 CUWCC BMP Organization and Names (2009 MOU) and UWMP DMMs					
Type	Category	BMP #	BMP Name	DMM #	DMM Name
Foundational	Operations Practices	1.1.1	Conservation Coordinator	12	Water Conservation Coordinator
		1.1.2	Water Waste Prevention	13	Water Waste Prohibition
		1.1.3	Wholesale Agency Assistance Programs	10	Wholesale Agency Programs
		1.2	Water Loss Control	3	System Water Audits, Leak Detection, and Repair

Table 6.1.1 CUWCC BMP Organization and Names (2009 MOU) and UWMP DMMs					
Type	Category	BMP #	BMP Name	DMM #	DMM Name
		1.3	Metering with Commodity Rates for All New Connections and Retrofit of Existing Connections	4	Metering with Commodity Rates for All New Connections and Retrofit of Existing Connections
		1.4	Retail Conservation Pricing	11	Conservation Pricing
	Education Programs	2.1	Public Information Programs	7	Public Information Programs
		2.2	School Education Programs	8	School Education Programs
	Programmatic	Residential	3.1	Residential Assistance Program	1
2					Residential Plumbing Retrofit
3.2			Landscape Water Survey	1	Water Survey Programs for Single-Family Residential and Multifamily Residential Customers
3.3			High-Efficiency Clothes Washing Machine, Financial Incentive Programs	6	High-Efficiency Washing Machine Rebate Programs

Table 6.1.1 CUWCC BMP Organization and Names (2009 MOU) and UWMP DMMs					
Type	Category	BMP #	BMP Name	DMM #	DMM Name
		3.4	WaterSense Specification (WSS) toilets	14	Residential Ultra-Low-Flush Toilet Replacement Programs
	Commercial, Industrial, and Institutional	4	Commercial, Industrial, and Institutional	9	Conservation Programs for Commercial, Industrial, and Institutional Accounts
	Landscape	5	Landscape	5	Large Landscape Conservation Programs and Incentives

6.2 OPERATIONS PRACTICES

6.2.1 Water Conservation Coordinator (DMM 12)

As a member agency of CBMWD, the City takes advantage of the CBMWD’s water conservation coordinator that works with cities and water agencies to enhance their conservation efforts. This close collaboration between CBMWD’s conservation coordinator and City staff provides for a successful execution of the demand management measures. In addition, CBMWD’s conservation coordinator represents all member agencies at regional and statewide workshops and organizations. Conservation coordination within the City are an auxiliary responsibility of existing staff. Additionally, Central Basin’s conservation coordinator also seeks Federal, State, and local funding to develop new programs that member agencies, such as the City of Paramount, can partner on and provide additional benefits to customers.

6.2.2 Water Waste Prohibition (DMM 13)

The City has not chosen at this time to adopt a water waste prohibition ordinance. However, in order to further promote water conservation, the City has adopted a Water-Efficient Landscape Provision Ordinance to avoid excessive landscape water demands and waste. See Appendix I: Ordinance 825.

6.2.3 Wholesale Agency Programs (DMM 10)

This DMM is not required as the City is not a wholesale agency.

6.2.4 System Water Audits, Leak Detection, and Repair (DMM 3)

The City completes an annual pre-screening system audit of its potable water system to determine the need for a full-scale system audit. The system audit is performed by tracking the actual metered water use, which can be compared to total well production. Production is tracked monthly and reviewed annually to determine if the system exhibits significant losses.

Using 2010 data, verifiable use as a percent of total production is calculated comparing actual metered sales (6,177 AF) against total supply into the system as measured at the wellhead meters (6,779 AF). Based upon this data, the City has approximately 8% loss in their system, which did not require the implementation of system audits.

6.2.5 Metering with Commodity Rates for All New Connections and Retrofit of Existing Connections (DMM 4)

Part of DMM 4 includes the retrofitting of existing metered connections. The City estimates that there are no unmetered connections within the City limits since there has never been a flat rate charged for water use within any sector. Therefore, no program for retrofitting existing unmetered connections is identified. The City currently bills its retail customers according to meter consumption. The City requires meters for all new connections and bills by volume-of-use.

6.2.6 Conservation Pricing (DMM 11)

The City purchases imported water from CBMWD at a two-tiered rate structure. This rate structure promotes water conservation and regional supply reliability. The City is committed to a voluntary purchase agreement with CBMWD which outlines the amount of water to be purchased at a Tier 1 rate and the cost of the Tier 2 rate for water purchases that exceed the Tier 1 allotment.

In order to further promote water conservation and supply reliability, the City has adopted a similar rate structure for its customers. The City utilizes a two-tier structure for each customer account category. The City's water rate schedule is updated on a yearly basis. See Appendix J: Water Rate Structure.

6.3 EDUCATION PROGRAMS

6.3.1 Public Information Programs (DMM 7)

The City and CBMWD work together to raise public awareness regarding many different issues regarding water and water supply. These issues include information pertaining to runoff pollution, water quality, and water conservation. The City and CBMWD have several ways of educating the public about these broad topics that ultimately pertain to water use by the City customers.

The City of Paramount provides public information via city-wide events, flyers, and direct mailings to customers. Additionally, customers can attend regular meetings of the Public Works Commission to receive information about the water system.

Through its membership in CBMWD, the City is active in the California Water Awareness Campaign (CWAC), which is an association formed several years ago to coordinate efforts throughout the state during “May is Water Awareness Month”. With this effort, water agencies throughout the state, large and small, can tap into a large pool of knowledge and materials to promote a water awareness message not only in May, but throughout the year.

The table below shows the implementation schedule and actual/projected expenditures of certain of the above-listed conservation efforts through 2015.

Program	2006	2007	2008	2009	2010
Bill Inserts/Newsletters/Brochures	X	X	X	X	X
Actual Expenditures	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500

Table 6.3.2 Public Information Projected Expenditures					
Program	2011	2012	2013	2014	2015
Bill Inserts/Newsletters/Brochures	X	X	X	X	X
Projected Expenditures	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500

6.3.2 School Education Programs (DMM 8)

Water and environmental education are critical components of an effective outreach strategy. CBMWD offers a variety of elementary through high school programs free of charge to all schools within the City’s service area. The following list shows the educational programs offered by CBMWD:

- Water Squad Investigations (Grades 4-12)
- Water Wanderings (Grades 4-5)
- Think Watershed (Grades 4-6)
- Think Earth! It’s Magic (Grades K-5)
- Think Water! It’s Magic (After School Program for Grades K-5)
- “Water is Life” Poster Contest (Grades 4-8)
- Waterlogged (Grades 9-12)
- Sewer Science (Grades 9-12)
- Conservation Connection: Water & Energy in Southern California (Grades 5-8)
- Water for the City: Southern California Urban Water Cycle (Grades 4-8)

6.4 RESIDENTIAL PROGRAMS

6.4.1 Water Survey Programs for Residential Customers (DMM 1)

Residential surveys evaluate all the water-using devices inside the home such as toilets, faucets, showerheads, etc. A trained surveyor checks for leaks and tests the flows indoor and

outdoor. Once the survey is completed, recommendations are provided for retrofitting certain water use devices, and educational materials are also supplied to the resident. Residential surveys provide the City with a great opportunity to provide their customers with a program that offers customer outreach opportunities. Currently, surveys are completed on an as needed basis.

6.4.2 Residential Plumbing Retrofit (DMM 2)

Residential plumbing retrofit recommends the distribution and retrofit of low-flow showerheads, Ultra-low flow toilets, and faucet aerators, as well as the adoption of enforceable ordinances.

The City and CBMWD distributes retrofit equipment, such as low-flow showerheads, at city-wide events such as the annual Safety Fair. Availability of conservation devices are also promoted within City publications. In addition, these items are distributed to any resident who makes a request.

6.4.3 High Efficiency Washing Machine Rebate Programs (DMM 6)

As a member agency of CBMWD, the City participates in CBMWD’s High-Efficiency Clothes Washer (HECW) Program. This program has exceeded all expectations and continues to be one of CBMWD’s more successful programs. When the HECWs first hit the market, the devices were quite expensive but market demand has helped to drive the price down. The new HECWs cost twice as much as regular inefficient models, but by providing a \$100 rebate (along with other utility/store incentives); consumers are choosing to purchase the new HECWs. The HECWs also have other benefits; not only do they save 50% water but also save 60% electricity and use less detergent. A high-efficiency washer will save approximately 6,500 gallons of water per year for an average household.

Table 6.4.2 illustrates the number of rebates distributed to City of Paramount customers over the past three years. Approximately 104 washing machine rebates were given to residents of the City of Paramount since 2005.

Table 6.4.2 High-Efficiency Washing Machine Rebate Summary					
Year	FY 05-06	FY 06-07	FY 07-08	FY 08-09	FY 09-10
Rebates Given	11	19	33	33	8

6.4.4 Residential ULFT Replacement Programs (DMM 14)

The City participates in CBMWD’s Ultra-Low Flush Toilet (ULFT) Program. Technology standards have replaced the 1.6 gpf ULFT with High-Efficiency 1.28 gpf Toilets (HET). Today, CBMWD only distributes HETs.

HETs have been a key element in the conservation success CBMWD has experienced over the years. Free HET distribution events have provided thousands of free toilets to local residents throughout CBMWD’s service area. Since 2005, CBMWD has completed more than 5,000 HET installations in single family, multifamily and commercial, industrial and institutional facilities throughout CBMWD’s service area. CBMWD receives requests to participate in various local partnerships to provide disadvantaged residents with HETs. CBMWD’s service area is home to many disadvantaged residents and the need for free, water conserving toilets remains high. Given the current economic state, the conservation coordinator for CBMWD is focusing attention on securing additional sources of funding to make HET programs possible. Since 2005, 905 ULFTs or HETs were installed through this program in the City of Paramount.

Table 6.4.3 High-Efficiency Toilet Rebate Summary					
Year	FY 05-06	FY 06-07	FY 07-08	FY 08-09	FY 09-10
Rebates Given	14	55	0	141	695

6.5 COMMERCIAL, INDUSTRIAL, AND INSTITUTIONAL PROGRAMS

6.5.1 Commercial, Industrial, and Institutional Programs (DMM 9)

The City participates in a region-wide CII rebate program developed by CBMWD in partnership with MWD. CBMWD participates in MWD’s region-wide commercial “Save A Buck” rebate program which provides water conservation devices to be utilized in commercial, industrial and institutional facilities. These rebates are promoted to the businesses, schools and facilities throughout the City’s service area. Rebates are offered for commercial clothes washers, waterbrooms, cooling tower conductivity controllers, pre-rinse spray nozzles, x-ray machine recirculation devices and commercial toilets and urinals.

A total of six pre-rinse spray nozzle valves have been installed in the food services sector customers in the City of Paramount. These new nozzles use 1.6 gallons per minute (gpm) compared to 2 to 6 gpm valves. These valves conserve water and reduce heating costs and waste-water discharge.

In 2003, Central Basin applied for and received a \$780,000 Proposition 13 grant for the purchase and installation of 2,600 Waterfree Urinals. Waterfree urinals can save an average of 40,000 gallons of water per year. A total of 134 of these Waterfree urinals have been installed in the City of Paramount since the program's inception.

6.6 LANDSCAPE PROGRAMS

6.6.1 Large Landscape Conservation Programs and Incentives (DMM 5)

Despite the urbanization of Southern California, the region is dotted with large turf areas that require year-round irrigation to keep them green. Some of these areas within the include parks, schools, and street medians. The City is working along with CBMWD to reduce demand for water for irrigation purposes by providing recycled water in its service area. In addition to the MWD's region-wide "SoCal Water\$mart" and "Save A Buck" rebate programs, CBMWD also offers various large landscape conservation programs including:

- A District-wide large landscape managed irrigation program, incorporating maintenance, monitoring and tracking of individual property water savings
- Federal and State grants providing over 2,000 smart controllers to residential and commercial customers
- A city partnership program to install Smart Irrigation Controllers in parks and street medians
- A commercial landscape research grant to improve water use efficiency at schools, parks and open public spaces.

Most of the large landscape areas within the City are already taking advantage of recycled water, which helps to conserve potable water.