

6.0 WATER CONSERVATION

Water conservation is a method available to reduce water demands, thereby reducing water supply needs for the City. The City implements some water conservation best management practices (BMPs).

The unpredictable water supply and ever increasing demand on California's complex water resources resulted in a coordinated effort by the DWR, water utilities, environmental organizations, and other interested groups to develop a list of urban BMPs for conserving water. The California Urban Water Conservation Council (CUWCC) was created to assist in increasing water conservation through partnerships among urban water agencies, public interest organizations, and private entities. This consensus-building effort resulted in the MOU, as amended September 16, 1999, which formalizes an agreement to implement BMPs and provide a cooperative effort to reduce the consumption of California's water resources.

Those signing the MOU have pledged to develop and implement fourteen BMPs. The MOU requires that a water utility implement only the BMPs that are economically feasible. If a BMP is not economically feasible, the utility may request an economic exemption for that BMP. The BMPs as defined in the MOU are generally recognized as standard definitions of water conservation measures.

The City became a member of the CUWCC in August 2005, but has not yet started submitting annual reports. Table 6-1 identifies the fourteen BMPs, or Demand Management Measures (DMMs).

**Table 6-1. California Urban Water Conservation Council
Best Management Practices**

Best Management Practices, BMP
BMP 01: Water Survey Programs for Single-Family and Multi-Family Residential Customers
BMP 02: Residential Plumbing Retrofit
BMP 03: System Water Audits, Leak Detection, and Repair
BMP 04: Metering with Commodity Rates for all New Connections and Retrofit of Existing Connections
BMP 05: Large Landscape Conservation Programs and Incentives
BMP 06: High-Efficiency Washing Machine Rebate Programs
BMP 07: Public Education Programs
BMP 08: School Education Programs
BMP 09: Conservation Programs for CII Accounts
BMP 10: Wholesale Agency Assistance Programs
BMP 11: Conservation Pricing
BMP 12: Conservation Coordinator
BMP 13: Water Waste Prohibition
BMP 14: Residential ULFT Replacement Programs

6.1 Demand Management Measures – SEE ATTACHMENT WITH CHANGES

6.1.1 DMM No. 1 – Water Survey Programs for Single-Family Residential and Multi-Family Residential Customers

As part of this DMM, an agency targets single- and multi-family homes and sends out a qualified surveyor who checks water using devices within the house and evaluates landscapes and irrigation systems. MWDOC had a formal program that ended in FY 2001/02. The City does not have its own program.

In FY 2004/05, the City, along with MWDOC, participated in a regional program called the SmarTimer Rebate Program. Under the program, residential and small commercial properties are eligible for a rebate when they purchase and install a new, state-of-the-art, weather-based irrigation controller which can save 41 gallons per day per residence and can reduce runoff and pollution by 49 percent. The City is eligible to receive 1,192 valves over the life of the program, and in FY 2004/05, three residential and seventeen small commercial customers participated. The City will continue to provide on-site meetings, literature and incentives related to this program. As part of the MWDOC Grant for the SmarTimers a site audit and inspection is required and provided by contract through MWDOC.

The City is in the process of contracting for a professional/consultant that can assist the City in developing a residential and commercial site auditing program. Presently the City pays a contractor for audits as needed. Once the City has developed a program it is the desire of the City to hire a full or part-time professional staff person to do audits for residential and commercial properties as well as site measurements for public properties.

6.1.2 DMM No. 2 – Residential Plumbing Retrofit

Between 1994 and 2004, the City, in conjunction with MWDOC, distributed a total of 3,025 and 4,070 ultra low flush toilets (ULFT) to single-family and multi-family homes, respectively. In addition, through Metropolitan's mass showerhead distribution, the City installed 4,453 low-flow showerheads between 1991 and 1998, and over 75 percent of the City's single- and multi-family homes constructed prior to 1992 are fitted with low-flow showerheads. The City is meeting the requirement for this DMM, so no additional ULFT toilet or low-flow showerhead programs will occur. But through MWD/MWDOC pass-thru rebates funding is still available for rebates for these items until the requirement sunsets in 2007, which is when the field is deemed to be saturated.

6.1.3 DMM No. 3 – System Water Audits, Leak Detection, and Repair

The City records daily production and demand data and reads all meters on a bi-monthly basis. All metered sales and other verifiable uses such as backwash, flushwater, and operation and maintenance, are recorded. The unaccounted water loss varies year to year but is approximately five percent of the total water in the system. The City is meeting the requirement for this DMM.

6.1.4 DMM No. 4 – Metering with Commodity Rates for all New Connections and Retrofit of Existing Connections

All of the City's water connections are metered and billed based on commodity rates.

6.1.5 DMM No. 5 – Large Landscape Conservation Programs and Incentives

MWDOC has a program titled "Landscape Performance Certification Program", which provides a water-based budget for dedicated meters. This program involves developing water budgets based off of agency-provided consumption data, site-provided area measurement, local weather data, and contact information for the site owner, the responsible landscape company, and a property manager. On a monthly basis, the site's water budget is developed by water meter and provided back to the three involved entities in an e-mail report card format. Also included is a website where all involved can view their site for budget numbers, which illustrate whether a meter is over, under, or exactly at their budget. Included is a calculation based on individual water rates showing dollars lost. This program does not include a formal landscape survey component. Financial incentives are offered to improve landscape water use efficiency, and regional funding is available from Metropolitan.

The City participates in the Landscape Performance Certification Program, and has 32 meters for FY 2004/05 and 3 meters for FY 2005/06. Through the SmartTimer Grant the City is requiring all Commercial applicants to participate in this program as a condition of funding by the City.

6.1.6 DMM No. 6 – High-Efficiency Washing Machine Rebate Programs

The City participates in the High-Efficiency Clothes Washer (HECW) program sponsored by Metropolitan and MWDOC. Effective November 18, 2005, MWDOC began offering a \$300 rebate for each HECW purchased and installed properly. Qualified machines must have a water factor of 6.0 or less to qualify. These machines typically use 15 to 25 gallons less water per load, with a potential water savings of up to 7,000 gallons per year.

Over the past 4 years, 781 residences have installed HECWs through this program, and the City continues to provide information to residences about these rebate programs.

6.1.7 DMM No. 7 – Public Information Program

The City has an active program to promote and educate its customers about water conservation and other water-related topics. For seven out of the last eight years the City has participated in the Annual Children's Water Education Festival sponsored by OCWD, The Disneyland Resort and various City's and Agency's throughout Orange County, when requested the Utilities Conservation Coordinatoor goes into the classrooms and discusses various aspects of conservation. The City is also in the process of updating its website to include conservation related materials and information. Including other resources for helping meet the publics conservation needs.

Each year the City publishes and distributes its Water Quality Report, as require by DHS. In addition to water quality data, this report contains information about the City's sources of supply and potential new projects.

6.1.8 DMM No. 8 – School Education Programs

Since 1975, MWDOC has offered water education programs to Orange County public and private schools for all grade levels from kindergarten through high school. The City participates in this program, and during FY 2004/05, MWDOC made 4 presentations to 245 students.

6.1.9 DMM No. 9 – Conservation Programs for Commercial, Industrial, and Institutional Accounts

MWDOC has a rebate program for replacing highflow devices with low-flow ones but does not conduct surveys for commercial, industrial, and institutional accounts. During FY 2004/05, 25 of the City's commercial, industrial, and institutional customers installed a water-saving plumbing fixture, and a total of 182 fixtures have been installed since FY 2001/02. The City will continue to educate this account category to meet the DMM requirements. The City is also working with the Orange County Sanitation District to target CII customers in the City who could benefit from the reduction or recycling of large water using devices that MWD will help fund to upgrade.

6.1.10 DMM No. 10 – Wholesale Agency Assistance Program

The City is not a wholesale agency, so this DMM does not apply.

6.1.11 DMM No. 11 – Conservation Pricing

The City currently has uniform pricing for all water. The City is currently investigating the various tiered rate pricing schemes so it can report to the Council on the efficiency and staffing requirements to convert the current billing system to one that includes tiered pricing.

6.1.12 DMM No. 12 – Conservation Coordinator

The City has a designated water conservation coordinator, Teresa Moritz, and thus meets this DMM.

6.1.13 DMM No. 13 – Water Waste Prohibitions

The City of Newport Beach has a formal water waste prohibition. The City does attempt to promote the most reasonable, wise and efficient use of water. Some of the suggested practices include:

- New landscaping shall incorporate drought-tolerant plant materials and drip irrigation systems, wherever possible.
- Water leaving the user's property due to over-irrigation of landscape, should be minimal. If an incident such as this is reported, a customer service representative will visit the location, investigate, inform resident if possible, leave a note and in some cases shut-off the water.

- It is suggested that watering should be done during the early morning or evening hours to minimize evaporation (between 4:00 p.m. and 9:00 a.m. the following morning).
- All leaks are investigated and repaired.
- Water should not be used to clean paved surfaces, such as sidewalks, driveways, parking areas, etc., except to alleviate immediate safety or sanitation hazards.
- Reclaimed water shall be used wherever available, assuming it is economically feasible.

6.1.14 DMM No. 14 – Residential ULFT Replacement Program

Since 1994, MWDOC has had two ULFT programs: a rebate program and a distribution program. The City has participated in this program but has had limited success. Seven ULFTs were installed through MWDOC's CII ULFT program between FY 2001/02 and FY 2003/04, and through MWDOC and local agency conservation programs, the City has installed 7,091 ULFTs between FY 1995/96 and FY 2004/05. However, many of the housing units have low-flush toilets, and the City meets the coverage requirements for this DMM.

6.2 Determination of Implementation

Apart from DMM No. 10, which is not applicable to the City, the City does not have any DMMs that are not currently being implemented or that are not scheduled for implementation.

Table 6-2. (DWR Table 16) Evaluation of Unit Cost of Water Resulting from Non-implemented DMMs

Non-implemented & Not Scheduled DMM / Planned Water Supply Projects	Per-AF Cost (\$)
Not Applicable	\$0

Source: City staff