

IV. MANAGE WATER DEMAND

Riparian Vegetation Mitigation #1 in the Five-Year Mitigation Program entails “conservation and water distribution management to retain water in the Carmel River.” Finding No. 389-A adopted by the District Board states that annual monitoring of conservation activities would be reported. This section includes information on the District’s conservation and demand management programs.

A. Water Conservation

Description and Purpose

A major goal adopted by the District Board is to promote water conservation and education regarding water issues. To that end, the District has carried out a comprehensive water conservation program since 1987. A cornerstone of the District’s program is a water conservation ordinance that requires retrofit of inefficient plumbing fixtures to ultra-low flow fixtures at the time a property changes ownership, for new construction and remodels, and for commercial changes in use or expansion. A second cornerstone was added in 1997 when the District began issuing rebates for voluntary toilet replacements with 1.6 gallons-per-flush toilets. The rebate program has been expanded over the years to include rebates for dual-flush toilets, low consumption dishwashers and washing machines, instant-access hot water systems and cisterns. Other components of the program include an aggressive commercial retrofit program; the Expanded Water Conservation and Standby Rationing Plan (Regulation XV) to maintain water use with the limits set by the State Water Resources Control Board (SWRCB) Order WR 95-10; distribution of water-saving showerheads, faucet aerators and hose shut-off nozzles; public education as a member of the Water Awareness Committee of Monterey County; and District policies to promote conservation in jurisdictions within the District. The District has a long-term goal of 15 percent permanent reduction in projected use by year 2020.

Implementation and Activities During 2006-2007.

- **Conservation Inspections** -- District staff continued an intensive inspection program to ensure compliance with the conservation regulations; inspections focused on change of ownership requirements and new construction or remodel water permit requirements and conditions.

Transfer of title inspections make up the bulk of the District’s inspection program. Most of the **1,108** properties that changed ownership from July 2006 through June 2007 (FY 06-07) were inspected for installation of ultra-low flow fixtures prior to the close of escrow. **Eighty percent** (80%) of the inspected properties were found to meet the conservation requirements during the first inspection. An additional 10% passed the second inspection, typically after replacing older toilets identified during the initial inspection. To establish 100% compliance with the retrofit requirements, staff continues enforcement until compliance is achieved.

Water saving equipment is required as a condition of water permits issued for new construction and remodels. District staff inspected **573** properties in this category to verify compliance with water permit conditions. Inspections included verification of conservation measures, such as drip irrigation and “instant-access” hot water (systems that make hot water available within six seconds), as well as installation of ultra-low flow fixtures throughout the property.

For the above two categories, a total of about **1,462** inspections were conducted from July 2006 through June 2007. An estimated **27.393** acre-feet (AF) of water is being saved annually by the retrofits verified for these two categories during FY 06-07.

- **Other Conservation Incentives** -- The District continued to offer incentives for property owners who agree to install state-of-the-art water appliances to offset new water fixtures as a condition of their water permit. Credit, in the form of water fixture units, remained available for installing ultra-low water consumption dishwashers and washing machines, one-gallon and half-gallon per flush toilets, and “instant-access” hot water systems in remodels and additions. During the 2006-2007 period, **274** property owners agreed to one or more of these conditions for credit. This incentive program is one way to meet the needs of property owners without increasing water use.
- **Expanded Rebate Program** -- In January 1997, the District enacted a program that offered rebates of up to \$100 for every older residential toilet replaced with an ultra-low flow model. The program is co-funded with California American Water (CAW). Water saved through this program is set aside to reduce community water use. Initially designed to facilitate toilet replacements that might not otherwise occur for years, the program was expanded in 2003 to provide rebates for ultra-low consumption appliances and cisterns.

From July 1, 2006 through June 30, 2007, an estimated **12.032** AF of water annually was permanently saved by the rebate program. A total of **782** applications were received, and **586** applications were approved. Most denied applications were from applicants located outside of the District or requested rebates for water fixtures that did not meet the District’s criteria. The District and CAW rebated **\$17,655.47** for toilets that were replaced as a result of this program, and **\$55,500.00** for ultra-low water consumption appliances, hot water demand pumping systems, and cisterns. The average refund per toilet was **\$73.00**. All other refunds are **\$100.00**. A breakout of the refunds is as follows:

- In the single-family residential sector, **731** refund applications were approved; **242** toilets were replaced for an annual savings of **2.852** AF or **929,327** gallons per year; **61** dual-flush toilets were installed for an annual savings of **1.83** AF or **596,307** gallons per year; **121** ultra low-water consuming dishwashers and **345** ultra low-water consuming washing machines were installed for an annual savings of **5.538** AF or **1,804,568** gallons per year.
 - In the multi-family residential sector, **19** refund applications were approved; and **31** toilets were replaced for an annual savings of **0.713** AF or **232,332** gallons per year.
 - In the non-residential sector, **6** refund applications were approved; and **26** toilets were replaced for an annual savings of **0.619** AF or **201,702** gallons per year and **345** ultra low-water consuming washing machines were installed for an annual savings of **5.538** AF or **1,804,568** gallons per year.
- **Conservation Education** -- District activities remained focused on public education to encourage Peninsula residents and businesses to continue water conservation practices. Individual water waste education took place as necessary to remind water users not to wash sidewalks, leave hoses running or ignore leaks. The Expanded Water Conservation and Standby Rationing Plan has

been successful in keeping community water use below the limits set by the State Water Resources Control Board. The District with CAW finalized the joint CAW/MPWMD public outreach campaign, designed to inform and remind the community about requirements contained in Stage 1 of the District's Expanded Water Conservation and Standby Rationing Program.

District staff met with representatives of the Monterey County Hospitality Association (MCHA) to discussed conservation outreach to the hospitality industry. The District, in partnership with CAW worked with the MCHA and others to print conservation messages on table tents, stickers and mirror decals to assist the hospitality industry with achieving conservation program compliance.

The District also continued supporting water conservation education through the Water Awareness Committee of Monterey County (WAC). WAC is a nonprofit water education organization serving Monterey County. The District holds a seat on the WAC Board of Directors and contributes annual financial and staff support. WAC provides books on water efficient landscaping, drip irrigation, and other water related subjects to libraries in Monterey County, and provides numerous opportunities for the public to learn about local water issues. The District participated in the Water Awareness Committee of Monterey County's 2nd Annual Xeriscape Design Awards at the Monterey County Fair. Staff judged the garden displays in the horticultural center for promotion of the Water Awareness Committee's *Retire Your Turf* campaign.

District staff attended seminars on "Smart Technologies for Irrigation Management." "Smart technology" refers to the new irrigation controller equipment that uses local weather information to automatically adjust irrigation schedules, resulting in significant savings of both water and money. The subject matter covered soil-plant-water relationships, uniformity and irrigation efficiency, evapotranspiration (ET) calculations and weather stations, smart controllers, environmental sensors and watering windows and scheduling. The information presented helps District staff with reviewing landscaping plans and water budgets.

The District developed the "Water-Wise Gardening in Monterey County" software. A highly successful collaboration initiated and funded by the Water Awareness Committee of Monterey County, and four of its members, i.e., MPWMD, CAW, Marina Coast Water District, and Cal Water Service (which serves the Salinas area). This interactive water conservation tool provides practical ideas and examples for creating water-saving gardens. It features examples of water-efficient landscaping and plants, this custom-tailored CD includes details descriptions for more than 1,000 plants and a "gardening guide" with a virtual encyclopedia of water-wise landscape design, irrigation and maintenance tips appropriate to our semi-arid, Mediterranean climate. Users optimize their experience by using "MY LIST," a feature that lets you "shop" for plants by creating a list of plants that can be printed to take to your local nursery. The Water-Wise Gardening in Monterey County CDs are available to the public.

B. Water Distribution Management (Water Permits)

Description and Purpose

An important District activity is to balance water supply and demand through the MPWMD Water

Allocation Program, and carefully track how much of the allotted water has been used by member jurisdictions. A number of ordinances have been adopted over the years to modify the permit program. A comprehensive listing of ordinance affecting this program is included in the Monthly Water Allocation Program Report.

In 1990, the District revamped its water allocation program, doing away with allocations based on a percentage of the total available production. Instead, a new process was initiated whereby only newly developed water supplies are available for new and/or expanding uses through an allocation by jurisdiction system. In mid-1993, the Paralta Well project received a use permit for operation, thereby making new water from the well available for the District to allocate to its eight member jurisdictions. The District allocated 358 AF for new CAW metered sales, including 308 AF to the eight jurisdictions and 50 AF to a District “reserve” for community benefit projects.

Beginning with the release of the Paralta water for use, District staff established procedures for closely tracking the amount of water permitted to new and expanded water uses. Each jurisdiction in the District was given a portion of the water to use for permitting. Each applicant for water must receive the jurisdiction’s authorization for a specific quantity of water before applying to the District for a water permit. The District evaluates the project’s water demand and issues a permit for the project description as depicted on the final construction documents. At the time the water permit is issued, the jurisdiction’s water allocation is debited. Monthly reports show the amount of water remaining in the allocation and the permit activity for the month.

In addition to water available from the eight jurisdictions within the District, there are several specific water entitlements: Water West, a water company purchased by CAW in the early 1990’s has an independent allocation of water for properties within the boundaries of the former system. Properties located in the Quail Meadow’s subdivision also have an independent entitlement of water.

Implementation and Activities During 2006-2007

- **Permit Activity** -- From July 1, 2006 through June 30, 2007, a total of **1,393** water permits were issued. As shown in **Table IV-1**, **18** new houses and **801** residential remodels/additions were permitted in the CAW system. There were **46** non-residential water permits issued for remodels/additions and changes in use in the CAW system. As of June 30, 2007, a total of **128.028 AF** of water remained available for use in the areas served by the Monterey Division of CAW. This includes water from pre- and post-Paralta allocations and water that was added to a jurisdiction’s allocation from Water Use Credit transfers and public retrofits.
- **Reclamation** – The CAWD/PBCSD Recycled Water Project began operation in 1994, producing reclaimed water to replace potable water previously used to irrigate golf courses and recreational open space in the Del Monte Forest (Pebble Beach area). At the start of operation, the District released the water entitlements to the project sponsors for their fiscal participation: The Pebble Beach Company received 365 AFY, Macomber Estates received 10 AFY, and the Griffin Trust received 5 AFY. The District retains 420 AFY of the project’s estimated savings of 800 AFY; none of the District share has been allocated.

Ordinance No. 109. Since 2001, discussions with the Pebble Beach Company (PBC) and others took place regarding funding mechanisms for needed expansion and improvements to the reclamation project. In May 2004, the Board adopted Ordinance No. 109 (amending Rule 23.5) to enable financing of upgrades to the CAWD/PBCSD Recycled Water Project. This ordinance enables water entitlements presently held by the PBC to be made available to all properties within the Del Monte Forest in order to finance the Project Expansion. Ordinance No. 109 also provides a framework for several ancillary agreements for financing, construction and operation, and sale of recycled water.

In April 2005, the first Water Use Permits were issued to property owners in the Del Monte Forest who purchased water from the PBC. By June 30, 2007, the District had issued Water Use Permits allowing **60.930** AFY to be transferred from the PBC to independent property owners in the Forest. Property owners taking advantage of this program pay PBC for a portion of their entitlement and receive documentation of their purchase. The District processes and records a Water Use Permit on the title of the property that provides notice of the amount of water entitlement available. Regular water permits are required when the property owner desires to use the Water Use Permit.

- **Interagency Coordination** -- District staff has extensively coordinated with community development personnel from the local jurisdictions to help streamline the permit process. Presentations on the local water supply situation were given, and meetings are regularly held to discuss permit procedures and to answer questions about allocation management. Through these meetings, rapport has been developed with the local agencies, making the management of water supplies more productive and accurate.

**Table IV-1
Summary of Water Permits Issued**

Main CAW System Permits Issued (July 2006-June 2007)			
Type of Use	No. of Permits	Use (acre-feet/year)	Average Use Per Permit (acre-feet/year)
PARALTA & PRE-PARALTA			
New Residential	18	3.779	0.210
<i>Pebble Beach Entitlements*</i>	7	2.313	0.330
Residential Remodels/Additions	801	0.953	0.012
<i>Pebble Beach Entitlements*</i>	52	3.294	0.063
New Non-Residential	10	7.760	0.776
<i>Pebble Beach Entitlements*</i>	0	0.000	0.000
Non-Residential Remodels/Additions	46	3.084	0.67
<i>Pebble Beach Entitlements*</i>	0	0.000	0.000

**Pebble Beach Entitlements are tracked separately from Main CAW System permits.*