

V. MONITOR WATER USAGE

A general mitigation identified in the Findings for the Final Allocation EIR (Finding No. 403) was to adopt Option V production limits as the new allocation maximum. This was achieved by the passage of Ordinance No. 53, "Selecting Water Supply Option V to Implement the Water Allocation Program," on December 13, 1990, effective January 1, 1991. The Ordinance entailed a monitoring component to track California American Water (Cal-Am) and non-Cal-Am production.

A companion Ordinance No. 52, "Implementing the Water Allocation Program, Modifying the Resource System Supply Limit and Causing a Temporary Limit on the Issuance of Water Connection Permits," was also passed on December 13, 1990. The Ordinance entailed a monitoring component to track the number of permits issued as well as the amount of water represented by the permits.

A. Monitor Production and Compliance with MPWMD and SWRCB Limits

Description and Purpose

The adoption of Ordinance No. 70 in June 1993 revised the Monterey Peninsula Water Resource System (MPWRS) supply limit from an annual production limit of 19,881 AF to 20,673 AF per year. The Cal-Am annual production limit of 16,744 AF (Option V from Finding No. 403 of the Final Water Allocation Program EIR; Ordinance No. 53) was revised to 17,619 AF, and the non-Cal-Am production limit of 3,137 AF was revised to 3,054 AF per year. This new water supply limit reflected the 385 AF of new water production from the Paralta Well and minor adjustments to reflect the integration of the Water West system into the Cal-Am system, the annexation of Quail Meadows Subdivision into Cal-Am, and the refinement of the non-Cal-Am production estimate.

Ordinance No. 83, adopted in April 1996, set Cal-Am's annual production limit at 17,621 acre-feet and the non-Cal-Am annual production limit at 3,046 acre-feet, based on permanent reductions in water use by non-Cal-Am water users in exchange for water service from Cal-Am. As part of the agreement, 15% of the historical non-Cal-Am production was set aside to meet the District's long-term water conservation goal. Based on these changes, a new limit for the MPWRS as a whole was set at 20,667 AF/year.

The Cal-Am production limit was again amended in February 1997, when Ordinance No. 87 was adopted as an urgency ordinance to provide a special community benefit reserve allocation of 19.6 acre-feet per year of production to the Community Hospital of the Monterey Peninsula. Ordinance No. 87 increased the total annual Cal-Am production limit to 17,641 AF/year, but did not change the non-Cal-Am limit. Thus, the new limit for the MPWRS as a whole is 20,687 AF/year.

In addition to District-imposed production limits as part of its Water Allocation Program, Cal-Am must also comply with limits set by the State Water Resources Control Board (SWRCB) in 1995 as part of Order WR 95-10. The Order includes a provision that Cal-Am water diversions (surface and groundwater production) from the Carmel River basin should not exceed 11,990 AF in Water Year (WY) 1996, and not exceed 11,285 AF in WY 1997 and subsequent years. A water year begins on October 1 and ends on September 30 the following year. The District program to monitor water use

includes tracking Cal-Am compliance with the SWRCB goals.

Implementation and Activities During 2007-2008

District staff continued to manage the overall supply budget, sending periodic reports to the cities and/or county and providing updates and general information as needed. The monitoring programs initiated by Ordinance Nos. 52 and 53 continue to be implemented. As noted in Section III-C of this report, beginning with the 2001-2002 Annual Report, the District changed the reporting period for the Well Registration and Reporting Program from a Reporting Year (July 1-June 30) to a Water Year (October 1-September 30) to be consistent with the SWRCB Order reporting requirements, and other hydrological reporting programs. The 2000-2001 Annual Mitigation Report was the last report in which ground water production within the District was presented in a Reporting Year format. Water production tables for the current year in this report use WY 2008 (October 1, 2007 through September 30, 2008) data.

As shown in **Table V-1**, total water produced within the Monterey Peninsula Water Resources System during WY 2008 was 17,191 AF, or 39 AF less (0.2% decrease) than the MPWRS production of 17,230 AF in WY 2007. Cal-Am's 2008 production of 14,225 AF was an increase of 114 AF compared to WY 2007. Non-Cal-Am 2008 production of 2,966 (including surface diversions) was a decrease of 153 AF (5% decrease) compared to WY 2007. In WY 2008, Cal-Am accounted for about 83% of total production within the MPWRS.

Regarding compliance with limits imposed by MPWMD as part of the Water Allocation Program, Cal-Am water production from the MPWRS in WY 2008 was 14,225 AF, or 81% of the 17,641 AF annual limit (3,416 AF lower than the limit). (**Table V-1**). Please refer to Section III-C for more information.

Regarding compliance with SWRCB Order WR 95-10, Cal-Am production from the Carmel River Basin in WY 2008 for the SWRCB tally was 10,775 AF. This number is derived from the 10,835 AF Carmel Valley Cal-Am well total shown in **Table III-1** minus the 60 AF that were injected into the Coastal Subareas of the Seaside Basin as part of the Seaside Basin ASR program that is under a separate permit from the SWRCB Order 95-10 tally. Thus, Cal-Am diversions were 510 AF (4.5%) below the 11,285 AF diversion limit from the Carmel River Basin imposed by the SWRCB. WY 2008 was the eleventh straight year in which compliance with Order WR 95-10 was achieved. A major purpose of the District's *Expanded Conservation Plan and Standby Rationing Program* is to ensure continued compliance with the Order. The community was in Stage 1 of the conservation program throughout the 2007-2008 reporting period.

B. Water Use Trends

Description and Purpose

Based on data provided by Cal-Am, District staff tracks water use (Cal-Am metered sales) over time to assess community water use trends. This can be used in water supply planning (augmentation) as well as development of conservation programs (e.g., assess the degree of conservation savings needed and the effectiveness of conservation programs).

Implementation and Activities During 2007-2008

Water use trends may be tracked by using production at the well-head, as described above, or by considering Cal-Am metered sales information. **Figure V-1** provides water use trends from 1980 through 2008 as represented by consumption in AF per Cal-Am connection (AF/connection) for customers in the Cal-Am's Monterey District (i.e., the "Main System"). This is based on Cal-Am annual data reports that provide water use information for each political jurisdiction and system subunits as well as several user classifications. For WY 2008, the use per connection is based on Cal-Am's total metered sales¹ (12,190 AF) divided by Cal-Am's total customers (38,383) and equaled 0.318 AF/connection.

Water consumption per connection in WY 2007 was again one of the lower rates on record, due in part to increased awareness of the need for conservation. **Figure V-1** indicates that water use per connection for the past 19 years (1989-2008) is significantly less than in the preceding 10 years (1981-1989). The sharp decline during WY 1989, WY 1990, and WY 1991 is attributable to mandatory water rationing. Since that time, annual water consumption has been relatively stable, ranging from approximately 0.31 AF/connection to 0.40 AF/connection. Notably, water consumption in WY 2008 (0.318 AF/connection) was 37 percent less than the pre-drought consumption in RY 1987 (0.503 AF/connection).

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¹Excludes Cal-Am satellite systems with separate well sources (Ryan Ranch, Hidden Hills, Bishop, Ralph Lane, Chualar and Ambler). Also excludes water supplied to MPWMD by Cal-Am wells to irrigate Carmel River riparian vegetation as part of the Allocation EIR Mitigation Program.

Table V-1
MPWMD ALLOCATION LIMIT COMPARED TO WATER PRODUCTION² IN THE
MONTEREY PENINSULA WATER RESOURCE SYSTEM
 Data from Water Years 2007 and 2008

WATER USER	ALLOCATION LIMIT	WY 2007 PRODUCTION	% LIMIT	WY 2008 PRODUCTION	% LIMIT
Cal-Am	17,641 AF	14,112 AF	80%	14,225	81%
Non-Cal-Am	3,046 AF	3,119 AF	102%	2966 AF	97%
TOTAL	20,687 AF	17,231 AF	83%	17,191	83%

Notes:

1. MPWRS includes production from the Carmel River and underlying Carmel Valley alluvial aquifer and Coastal Subareas of the Seaside Groundwater Basin.
2. The Water Year (WY) runs from October 1 to September 30; see Section III-C for more information.
3. The non Cal-Am Production figures include non Cal-Am surface water diversions.

Source: MPWMD production reports

² Production values (Table V-1 above) are based on amount of water diverted and pumped and are therefore higher than the metered sales figures for water delivered to customers (Figure V-1 below).

Figure V-1 California American Water Use Per Connection for Main System Users: 1980 – 2008

