

CALIFORNIA AMERICAN WATER COMPANY

VILLAGE DISTRICT

URBAN WATER MANAGEMENT

PLAN

2006-2010

CALIFORNIA AMERICAN WATER COMPANY

880 Kuhn Drive

Chula Vista, CA 91914

VILLAGE DISTRICT

2439 W. Hillcrest Drive

Newbury Park, CA 91320

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California American Water Company

880 Kuhn Avenue

Chula Vista, CA 91914

(619) 656-2400

Village District Office

2439 W. Hillcrest Drive

Newbury Park, CA 91320

(805) 498-6770

Prepared by:

Douglas Donaldson, AICP

Donaldson Associates

627 Spokane Avenue

Albany, CA 94706

(510) 528-3684

TABLE OF CONTENTS

	PAGE
I. Introduction	1
II. Public Participation and Interagency Coordination	2
A. Public Participation	2
B. Interagency Coordination	2
III. Description of the District	4
A. The California-American Water Company	4
B. Division Location and Size	5
C. Climate	8
D. Demography	9
E. Water Supply and Facilities	10
F. Storage	11
G. Exchanges with Other Agencies	12
IV. Past Water Production and Sales	13
A. Water Production	13
B. Water Sales and Unmetered Water	14
C. Water Sales by User Category	15
V. Projected Demand	20
A. Future Demand – Village District	20
B. Drought Scenarios	24
VI. Implementation of Demand Management Measures	30
A. Introduction	30
B. Pre-existing Water Conservation Programs	31
C. Demand Management Programs – 2006 - 2010	34
D. Implementation Program and Schedule	55

VII. Water Shortage Contingency Plan	57
A. Introduction	57
B. Water Shortage Emergency Response	57
C. Staged Response Plan for Water Supply Shortages	59
Appendix A	67

FIGURE LIST

1. District Boundaries	7
2. Total Annual Water Sales	17
3. Water Sales per Capita	19

LIST OF TABLES

1. Coordination and Public Involvement	3
2. Acronyms and Abbreviations Used in this Report	4
3. Climate Data	6
4. Population Projections	9
5. Water Purchases	13
6. Water Sales and Unaccounted-for Water	14
7. Water Sales by Category, Village District	16
8. Population, Connections and Sales	18
9. Projected Growth in Water Demand	22
10. Regional Supply and Demand Comparison	23
11. Drought Scenarios: 2006 - 2010	25
12. Drought Scenarios: 2010 - 2015	26
13. Drought Scenarios: 2015- 2020	27
14. Drought Scenarios: 2020- 2025	28
15. Drought Scenarios: 2025- 2030	29
16. CII Rebate Incentives	48
17. Implementation Plan Summary	56

I. INTRODUCTION

This report has been prepared in compliance with the Urban Water Management Planning Act, as amended.¹ The Act requires urban water suppliers to prepare plans that describe and evaluate reasonable and practical efficient water uses, water recycling, and conservation activities.

This is the fourth *Urban Water Management Plan* to be prepared by the California-American Water Company for the Village District under the terms of AB 797 (1983) and subsequent amending legislation. This Plan incorporates the water conservation initiatives that the District has adopted under the terms of the *Memorandum of Understanding Regarding Urban Water Conservation in California*, to which the Company is a signatory. This Plan also includes a *Water Shortage Contingency Plan* as required under the provisions of AB 11X of (1991) and addresses changes required by subsequent legislation including AB 892 (1993), SB 1017 (1994), AB 2853 (1994), SB 901 (1995), SB 610 (2001), SB 221 (2001) and AB 105 (2004).

Upon adoption, the Plan will be filed with the Office of Water Use Efficiency in the Department of Water Resources, the California Public Utilities Commission, the California State Library, the Calleguas Municipal Water District, the City of Thousand Oaks, and Ventura County. A public hearing will be held in Newbury Park to provide an opportunity for public comment prior to final adoption.

Once adopted, this plan will supersede the existing plan prepared in 2001. It will be filed with the Water Efficiency Office in the Department of Water Resources, as required by law, and will be used by the Company to guide the District's water conservation efforts through the year 2010. As required by §10621 (a) of the Water Code, the Plan will again be updated in five years.

¹California Water Code, Division 6, Part 2.6; §10610, et. seq. Established by Assembly Bill 797 (1983),

II. PUBLIC PARTICIPATION AND INTERAGENCY COORDINATION

A. PUBLIC PARTICIPATION

The Village District provided a notice of preparation of this Urban Water Management Plan to all customers through a printed message on their water bills in the summer of 2005. In February 2006, the Village District will convene a public hearing at its office in Newbury Park to receive comments on the Plan prior to its final adoption by the Company and submittal to the California Department of Water Resources.

In addition, as a Public Utility, the Company is regulated by the California Public Utilities Commission (CPUC), which routinely holds hearings on applications for rate adjustments and other activities affecting customers that are undertaken by the Company.

B. INTERAGENCY COORDINATION

As noted, the California Public Utilities Commission regulates Cal Am's operations in California. The Village District is a wholesale customer of the Calleguas Municipal Water District. Land use planning and development approvals within the District's boundaries are the responsibility of the City of Thousand Oaks and Ventura County. The coordination with these agencies is summarized in Table 1.

Public Participation and Interagency Coordination

TABLE 1 COORDINATION AND PUBLIC INVOLVEMENT				
Agency	Was sent a Notice of Preparation	Was contacted for Assistance	Was sent a copy of the Draft Plan	Was sent a Notice of Intention to Adopt
CPUC	✓		✓	✓
Calleguas Municipal Water District	✓	✓	✓	✓
City of Thousand Oaks	✓	✓	✓	✓
Ventura County	✓		✓	✓

III. DESCRIPTION OF THE VILLAGE DISTRICT

A. THE CALIFORNIA-AMERICAN WATER COMPANY

The California-American Water Company (CAW) is a private utility company, operated as a subsidiary of American Water (AW), headquartered in Voorhees, New Jersey. AW, in turn, was acquired by RWE Thames Water Holdings GmbH in 2003. California American Water was incorporated under California law in 1966 when American Water Works acquired the water system from California Water and Telephone. The Company operates seven separate water systems in California, which are, from south to north, Coronado, Los Angeles (comprising systems in Baldwin Hills, San Marino and Duarte), Village, Monterey, Felton, Sacramento, and Larkfield. The American Water Works Services Company provides many of the senior management, financial, operations, personnel and customer services for California American Water from the corporate office in Voorhees, NJ and an administrative office in Chula Vista, CA. Water quality testing and research is undertaken at the AWWC laboratory in Belleville, IL.

The operations of the California American Water Company in California are regulated by the California Public Utilities Commission (CPUC). The Company must comply with the rules, regulations and decisions of the CPUC.

AF	- Acre-Feet (1 AF = 325,851 gallons)
AFY	- Acre-Feet per Year
BMP	- Best Management Practice
CMWD	- Calleguas Municipal Water District
CPUC	- California Public Utilities Commission
CUWCC	- Calif. Urban Water Conservation Council
EOC	- Emergency Operations Center
gpcpd	- gallons per capita per day
gpdpc	- gallons per day per connection
gpd	- gallons per day
hcf unit	- A billing unit of 100 cubic feet or 748 gallons
ICS	- Incident Command System
mg	- million gallons
mgd	- million gallons per day
MAF	- Million Acre Feet
MOU	- Memorandum of Understanding
MWD	- Metropolitan Water District of Southern California
SWP	- State Water Project
ULFT	- Ultra-Low Flush Toilets
UWMP	- Urban Water Management Plan

B. DISTRICT LOCATION AND SIZE

The Village District serves approximately one-half of the City of Thousand Oaks and portions of unincorporated Ventura County within the Conejo Valley including Newbury Park and Los Posas, a small area adjacent to the City of Camarillo. The District is located in southern Ventura County approximately 10 miles inland from the Pacific coast. It is reached by U.S. 101 (the Ventura Freeway) and the Route 23 Freeway and is about 50 miles northwest of Los Angeles International Airport via I-405 and U.S. 101.

The District's service area covers approximately 20 square miles. The elevation in the service area ranges from 300 to 1,050 feet above sea level. Figure 1 is a map showing the District's Service Area.

C. CLIMATE

The Village District has a semi-arid Mediterranean climate typified by warm summers and mild winters. The warmest month of the year is August, and the coldest is January. As shown in Table 3, the average daily maximum temperature in August at the Santa Paula monitoring station is 81.7°, while the average minimum temperature in January is 41.0°.

TABLE 3 VILLAGE DISTRICT CLIMATE DATA							
	January	February	March	April	May	June	July
Standard Average Eto (in./mo.)	1.83	2.20	3.42	4.49	5.25	5.67	5.86
Average Rainfall (in.)	4.17	4.19	2.97	1.11	0.31	0.05	0.01
Average Max. Temperature (°F)	67.5°	69.0°	70.6°	73.2°	74.2°	76.8°	81.0°

	August	September	October	November	December	Annual
Standard Average ETo	5.61	4.49	3.42	2.36	1.83	46.43
Average Rainfall (in)	0.05	0.22	0.46	1.93	2.61	18.08
Average Max. Temperature	81.7°	81.1°	78.6°	73.7°	68.4°	74.6°
Eto (EvapoTranspiration) rates in inches/month from California Irrigation Management System (CIMIS) data for Station 152 in Camarillo.						
Rainfall and temperature data from Western Regional Climate Center; 1948-2005						

The average annual precipitation is 18.08 inches, virtually all of which is rainfall, with about 90 percent falling between November and April. Rainfall amounts vary widely from year to year, with a low of 5.02 inches in 1989 and a high of 38.60 inches in 1978. The evapo-transpiration rate is moderately high during the summer months, and the demand for irrigation water increases accordingly.

D. DEMOGRAPHY

The population served by Cal-Am in the Village District was estimated at 68,500 in 2005, compared with 65,080 in 2000.¹ This represents a population growth rate of 2.56% over 4 years or 0.64% per year on average. The vast majority (95%) of the system's customers are residential connections. Commercial connections, which include some condominium and apartment complexes with master meters, comprise approximately 3.6% of the connections, while governmental facilities and schools (public authorities) and industrial connections each account for 1% or less of the total connections.

The population of the area served by the District is expected to grow steadily, but slowly, in the coming years because of growth management limitations in the City of Thousand Oaks and on adjacent Ventura County lands. According to data and projections from the City of Thousand Oaks, Cal-Am's Village District has the potential to see the construction of about 1,055 additional dwelling units, based on the current General Plan. It is estimated that there would be almost equal proportions of single-family detached and multi-family units² Based on this data, the projected population growth for the Village District over the coming 20 years is estimated as shown in Table 4.

<p style="text-align: center;">TABLE 4</p> <p style="text-align: center;">POPULATION PROJECTIONS</p> <p style="text-align: center;">VILLAGE DISTRICT SERVICE AREA</p>					
Year	2005	2005	2010	2015	2020
District Population	68,500	70,200	70,700	71,000	71,300
<p>Source: City of Thousand Oaks; Donaldson Associates. Projections assume 3.17 persons per household for single family residential and 2.17 persons per household for multi-family dwellings.</p>					

¹ Population estimated from increases in service connections.

² John C. Prescott, Planning Division Manager, correspondence and personal communications, January 2006.

E. WATER SUPPLY AND FACILITIES

Cal-Am has, by contract with the Calleguas Municipal Water District (CMWD), the right to purchase all of the potable water required to serve its customers.¹ The Calleguas Municipal Water District serves 350 square miles in southeastern Ventura County. Under normal operating conditions, the District's drinking water supply is provided by the west branch of the State Water Project, a system of reservoirs, aqueducts and pumping facilities that conveys water from northern California's Sierra Nevada to southern California.

CMWD is a member agency of the Metropolitan Water District of Southern California (MWD). State water is piped into the Calleguas service area through system connections with MWD, a State water contractor, where it is conveyed by CMWD through 130 miles of distribution pipelines to local water retailers, including Cal-Am's Village District.

Cal-Am's Village District is the second largest water retailer served by the Calleguas District. The City of Simi Valley purchases more than Cal-Am. The Cities of Thousand Oaks and Oxnard are the next largest retailers in CMWD, after Cal-Am. Together these four retailers deliver almost 60% of the water supplied by CMWD.

In recent years the Metropolitan Water District and its member agencies have been aggressively seeking to firm up the safe yield of existing sources and expand the overall system's ability to reliably supply water to meet future needs. The Colorado River and State Water Project (SWP) comprise MWD's core supply. The Colorado River is considered to be firm, at 1.25 MAF/yr. during normal and dry years. The State Water Project yield is higher in years of normal or above-normal snowfall, but could drop to as low as 0.65 MAF in very dry years. Future drought impacts on SWP supplies would be mitigated with supplemental water from a number of dry-year storage and

¹ There are no limits (maximum or minimum) in the agreements with CMWD and the District believes that, by 2010, it will be able to supply the full needs of customers, including the Village District, during average years and single- and multiple-year droughts. CMWD, *Urban Water Management Plan 2005, (Draft)*, Tables 6-3 to 6-6.

exchange programs being developed by MWD, to the extent that MWD expects that by 2025 average year supplies will be 2.9 MAF/yr. while dry year supplies will be 3.4 MAF/yr.¹

In 2005, the total demand on the MWD system was about 2.2 MAF.² The year 2025 projected firm, dry-year yield of the MWD system of about 3.4 MAF reflects an substantial increase in supplies from the Integrated Resources Planning Project involving in-basin storage projects, conjunctive use, water recycling, groundwater storage and recovery, desalination, and other efforts. The projected demand on the system in 2025 is not projected to exceed 2.7MAF, and water supplies are projected to be sufficient to support anticipated population and employment growth while at the same time minimizing the risks that mandatory water rationing programs could be imposed on retail customers during a 1 - 3 year drought period.

All water purchased for the Village District has been treated to ensure compliance with federal and state drinking water standards. Prior to delivery into CMWD's distribution system, the imported water is treated at MWD's Joseph Jensen Treatment Plant in Granada Hills. Monitoring water quality within the distribution system remains the responsibility of the Company.

F. STORAGE

The District operates eight distribution reservoirs and thirteen steel storage tanks with a combined capacity of 36.9 mg. The storage volume meets the requirements of both the City of Thousand Oaks and CMWD. In all it is the equivalent to about three day's demand and is more than adequate for peaking demands, fire fighting needs and any temporary shortages.

¹ Metropolitan Water District of Southern California, *Regional Urban an Water Management Plan* (Draft), May 2005, Tables II-4 to II-6.

² Ibid, Table II-6.

G. EXCHANGES WITH OTHER AGENCIES

As a wholesale customer of the CMWD, which in turn, is a member of the Metropolitan Water District, Cal-Am's Village District has a direct intertie with the huge State Water Project. The District receives water from Calleguas through 12 separate connections in its service area. The Village District system also has two emergency interconnects with the Crestview Mutual Water Company in Camarillo.

IV. PAST WATER PRODUCTION AND SALES

A. WATER PRODUCTION

All of the Village District' water is purchased from the Calleguas Municipal Water District. These wholesale purchases, which represent the District's water production volumes, are summarized in five-year increments since 1980 in Table 5, below.

<p style="text-align: center;">TABLE 5 WATER PURCHASES 5-YEAR INCREMENTS, 1980 – 2005 in Acre-Feet per Year (AFY)</p>						
Source	1980	1985	1990	1995	2000	2005
Calleguas Municipal Water District	12,150.1	14,935.4	15,412.5	13,638.0 ^a	16,468.0	18,932.8
^a In the 1991- 1992 drought demand dropped to as low as 12,011 AFY. It did not reach the 1990 level until 1997.						

In 8 of the past 30 years the District's water production requirements have been affected by reduced demand due to water rationing. Either a voluntary or mandatory rationing program was in effect for all of 1977, 1988, 1991 and 1992, as well as portions of 1978, 1990 and 1993. Although the year-to-year variations are not shown in Table 5, the District's customers responded well to water conservation initiatives.¹ For example, water purchases from the CMWD system dropped considerably during the 1991 - 1993 drought.

¹ But see Tables 7 and 8 and Figures 2 and 3, below, which do show year-to-year variations in water sales.

B. WATER SALES AND UNMETERED WATER

The Village District's annual water sales and un-metered water, in volume and as a percent of production, are depicted in Table 6. The data is presented in 5-year increments beginning in 1980.

<p style="text-align: center;">TABLE 6 WATER SALES AND UNACCOUNTED-FOR WATER 5-YEAR INCREMENTS, 1980 - 2005 in Acre-Feet per Year (AFY)</p>						
Description	1980	1985	1990	1995	2000	2005
Water Sales	11,664.0	13,473.2	15,245.3	12,980.8	16,907.8	17,997.2
Unaccounted-for Water, Volume	158.36	432.56	55.08	620.53	576.86	901.6
Unaccounted-for Water, % of Purchases	4.0%	8.8%	1.1%	4.8%	3.3%	4.7%

Unaccounted-for water is the unauthorized component of unmetered water. In recent years the Company has begun estimating the authorized (non-revenue) component of unmetered water such as water for fire fighting and training, hydrant flushing and other miscellaneous uses. Authorized, unmetered water volumes are not included in Table 6. These volumes are small, ranging from 0.2% to 0.8% of total purchases.

Unaccounted- for water includes water lost to pipeline leaks, meter inaccuracy, tank overflows, and possible stolen water. As can be seen in Table 6, unmetered water volumes can vary widely from year to year, particularly in the event of major pipeline breaks. In recent years, unaccounted-for water has been below 5%, which is considered very efficient by industry standards. The District will continue its vigilance in reducing water losses with on-going programs to repair pipeline leaks

as soon as they are discovered, replace old, less reliable pipelines, and upgrade older, potentially inaccurate, water meters.

C. WATER SALES BY USER CATEGORY

Water sales for the past 19 years are summarized in Table 7 and Figure 2, by customer category. During this period the District added 4,214 new metered connections, with the total number of connections to the system increasing from 16,209 to 20,423. This represents 21% growth. Because of increased efficiencies in the use of water, total sales grew by 17% during the same period.

In the past five years, the District's customers have purchased an average of 793 gallons per day per connection. The residential category has accounted for about 95% of the total connections and about 68% of total sales, with an average consumption of about 574 gallons per connection per day. In 2005, the commercial category, with 737 connections (3.6% of the total) consumed an average of 3,412 gallons per day per connection while the District's 175 industrial connections used about 8,880 gallons per connection per day.

In 2000, the Village District served an estimated population of about 65,080 people. See Table 8. Land development and population have been growing slowly in recent years, although there was a surge in 2001 when the District had over 600 new connections, primarily from new development in the Dos Vientes Ranch planned community. The population is now estimated at 68,494 and has grown at an average rate of 0.82% in the past five years.

TABLE 7
SALES BY CATEGORY- VILLAGE DISTRICT
 1987 - 2005
 (AFY)

Year	Residential	Commercial	Public Authority	Industrial	Other	Total
1987	9,352.16	2,748.81	1,452.51	1,194.42	20.25	14,768.13
1988	9554.00	2,696.03	1,387.14	1,297.83	77.64	15,012.74
1989	9,869.28	2,842.41	1,431.33	1,280.65	6.44	15,430.11
1990	9,740.38	2,785.64	1,177.84	1,236.77	153.14	15,093.77
1991	7,371.80	2,156.52	811.42	1,005.37	94.52	11,439.63
1992	8,075.50	2,128.89	787.48	1,071.66	35.91	12,099.44
1993	8,665.65	1,874.56	910.54	1,185.52	52.48	13,339.59
1994	8,988.81	1,972.07	980.82	1,321.47	76.42	13,339.59
1995	8,774.91	1,850.24	1,044.04	1,485.65	63.83	13,217.74
1996	8,773.98	1,850.24	1,044.04	1,485.65	63.83	13,217.74
1997	10,233.55	2,092.68	1,089.15	1,471.23	129.51	15,018.12
1998	8,905.94	1,943.84	870.65	1,434.71	112.32	13,267.46
1999	10,576.35	2,368.27	1110.94	1822.62	212.98	16,091.16
2000	11,170.25	2,740.40	1,036.74	1,714.62	245.73	16,907.75
2001	10,914.99	2,535.08	983.83	1,674.60	162.48	16,270.98
2002	12,152.87	2,990.51	1,175.47	1,673.99	59.44	18,052.28
2003	12,035.67	2,937.43	1,156.72	1,242.71	69.16	17,441.69
2004	13,189.53	3,348.32	1,455.37	1,473.43	66.71	19,533.36
2005	12,453.08	2,729.26	1,129.79	1,583.81	51.24	17,997.18

Sources: Annual Reports to the Public Utilities Commission and CAW staff.

Past Water Production and Sales

The District's water consumption per connection and per capita (estimated) are shown in Table 8 and Figure 3, respectively for the past 19 years. As can be seen in Table 8 and Figure 3, the Village District's water sales on both a per connection and estimated per capita basis dropped in response to the Company's water conservation initiatives promoted during the drought of 1991 - 1993. Consumption on a per person basis was 24% lower in 1991 than it was in 1989, a year of above normal precipitation. In the past 5 years, water sales on a per-connection and a per-capita basis have rebounded to the levels that were seen in the late 1980's.

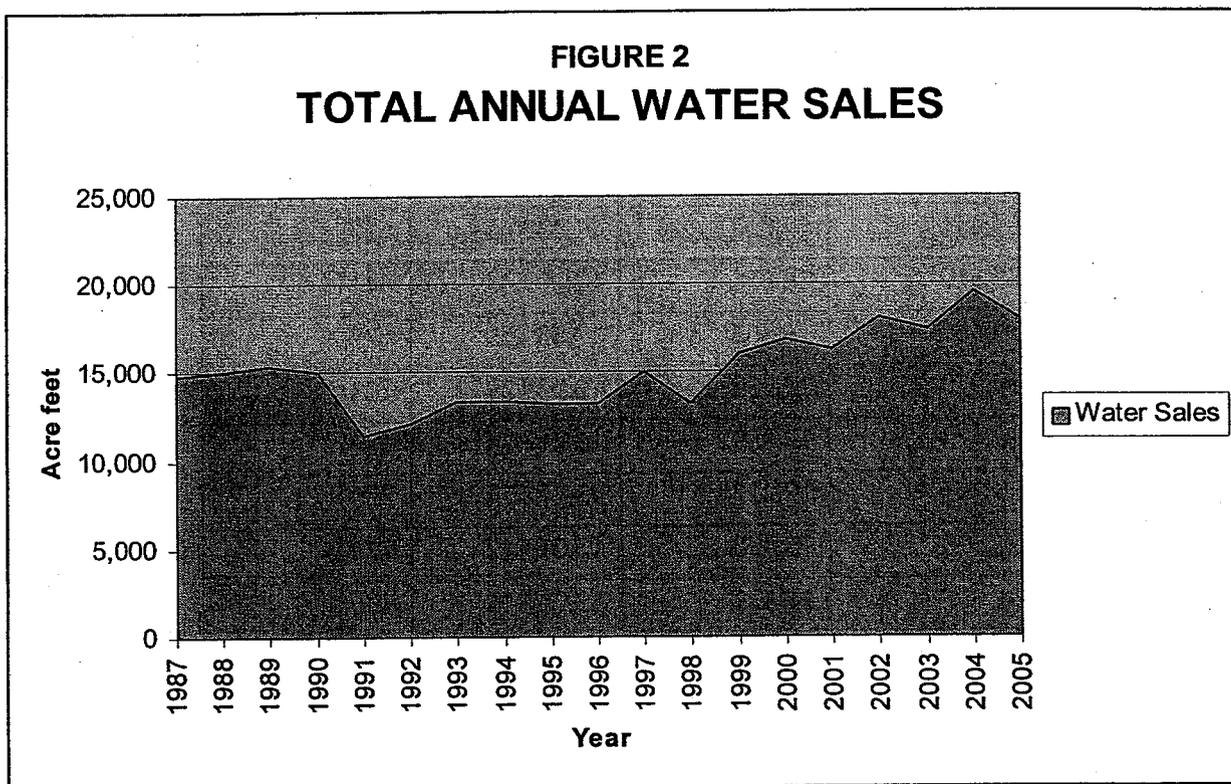


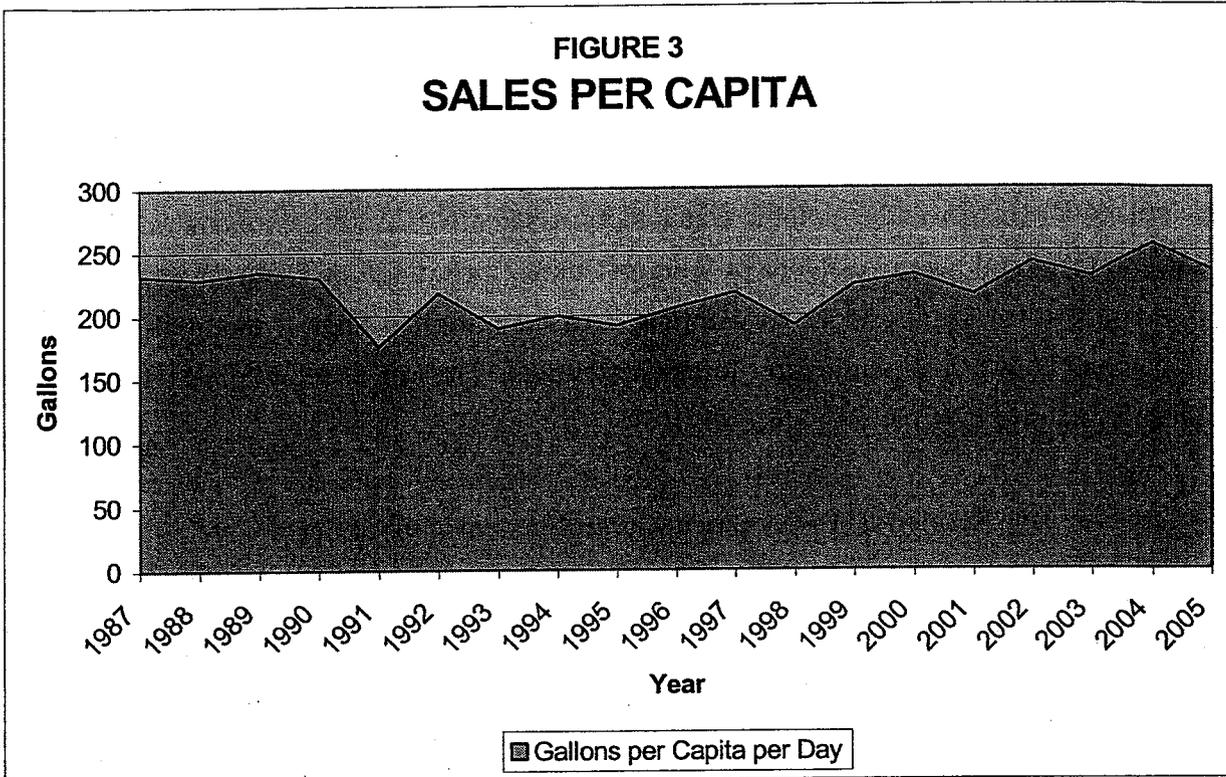
TABLE 8
POPULATION, CONNECTIONS AND SALES
1987 - 2005

Year	Population of District	Number of Connections ¹	Annual Sales	Sales per Connection	Sales per Capita
1987	56,730	16,209	14,768.13	813 gal./day	232 gal./day
1988	58,408	16,588	15,012.74	808	229
1989	58,681	16,628	15,430.11	831	235
1990	59,059	16,904	15,093.77	805	230
1991	59,441	17,002	11,439.63	617	176
1992	59,619	16,856	12,099.44	641	218
1993	59,668	16,865	13,339.59	673	190
1994	59,920	16,932	13,339.59	703	200
1995	60,473	17,089	13,217.74	678	192
1996	60,900	17,217	13,217.74	730	206
1997	61,590	17,408	15,018.12	770	218
1998	61,635	17,421	13,267.46	680	192
1999	62,175	18,139	16,091.16	780	224
2000	65,080	18,974	16,907.75	796	232
2001	67,358	19,638	16,270.98	740	216
2002	66,550	19,985	18,052.28	806	242
2003	67,600	20,300	17,441.69	767	230
2004	68,000	20,423	19,533.36	854	256
2005	68,500	20,569	17,997	781	235

¹ Excludes fire service connections.

Source: California-American Water Co., *Annual Reports of District System Operations* and CAW staff.

FIGURE 3
SALES PER CAPITA



Note: Sales per capita is calculated as *total* sales divided by population. The commercial, industrial and institutional sectors account for over 30% of the Village District's total sales. Per capita *residential* sales have ranged between 145 and 173 gpcpd in the past 5 years, with an average of 160 gpcpd.

V. PROJECTED DEMAND

A. FUTURE DEMAND – VILLAGE DISTRICT

The Village District provides potable water to approximately 20,600 customers¹ in the City of Thousand Oaks and nearby portions of Ventura County including Los Posas Estates and Conejo Oaks. The City of Thousand Oaks planning area continues to have a moderate amount of undeveloped land that is planned for future urban uses. The rate of growth has been relatively modest, averaging 1.7% per year since 2000.

The City has had a Residential Development Control System in place since 1980.² The purpose of the system is “to achieve a steady, rather than a fluctuating, overly rapid, rate of residential growth each year in order that the services provided by City, school, park, utility and /or service agencies . . . can be properly and effectively staged . . . ”³

The City of Thousand Oaks Planning Department maintains updated growth projections for the areas that are served by Cal-Am. Based on the General Plan, the City estimates that the Cal-Am service area has a remaining development potential for only 1,055 residential units.⁴ This development is expected to occur in the next 20 years, after which time the area will be essentially built out. The City expects that about 60% of this residential development will occur in the next 5 years, and that residential development will proceed more gradually after 2010.

Growth rates in the commercial and industrial sectors are likely to be higher than in the residential sector. Based on the existing General Plan, there is the potential development of as much as 4.9 million square feet of new commercial and industrial space in the area served by California

¹ Excluding standby fire service connections.

² City of Thousand Oaks, Municipal Code, Chapter 10, *Residential Development Control System*, Initiative Ordinance 749-NS adopted April 8, 1980 (Measure A) and amended in 1989 and 1990.

³ *ibid*, §9-10.01 (c)

⁴ John C. Prescott, Planning Division Manager, City of Thousand Oaks, January 25, 2006, personal communication.

American Water. Based on the City's projections, this would represent a 20% increase in retail commercial space, a 23% increase in office commercial space and a 29% increase in industrial space.

In the coming 5 years, the City estimates that as much as 38% of the projected commercial and industrial space could be developed, totaling 280,000 square feet of retail commercial, 200,000 square feet of office commercial, and 1,400,000 square feet of new industrial space.

Table 9 presents the resulting projected annual water requirements of the Village District in 5-year intervals through 2025. When compared to water demand in 2005, these projections indicate that overall demand will increase by about 7.4% in the coming decade, after which the rate of increase will drop, with the demand in 2025 projected to be 11% higher than in 2005.

The data in Table 9 includes both projected sales and non-revenue/unaccounted-for water. The totals, therefore, represent projected purchases from the Calleguas Municipal Water District. Cal-Am's contract with Calleguas allows the company to purchase all water necessary to meet its needs; there are no specified limitations on volume of water that the Village District can purchase from Calleguas in a given year. It should be noted that the total projected purchases shown in Table 8 are within 1% of the California American purchases that were projected in the Calleguas *Urban Water Management Plan*¹ at all of the milestone years, except for 2010, when the projections in this report are 4.1% greater. This is primarily attributable to the proportionately higher amount of new housing that the City Planning Department expects to be built between 2006 and 2010.

In order to meet its long term commitments to its retail customers, including Cal-Am, the Calleguas Water District has initiated a comprehensive capital improvement program which includes a variety of local water development projects including conjunctive use facilities and recycled water systems which. These projects, in conjunction with regional water supply programs, are intended to result in a virtually "drought proof" supply for the region and ensure adequate water supplies in the event imported water deliveries are curtailed or interrupted. These programs are summarized in the Calleguas Municipal Water District's *Urban Water Management Plan*.²

¹ Calleguas Municipal Water District, *Draft Urban Water Management Plan*, September 2005, Appendix Tables.

² Ibid, Chapter 2.

TABLE 9
PROJECTED GROWTH IN WATER DEMAND
 Acre Feet per Year (AFY)
 2005 - 2025

YEAR:	2005	2010	2015	2020	2025	INCREASE 2005 - 2025		AVERAGE ANNUAL INCREASE	
						AFY	%	AFY	%/yr
Residential	12,453	12,868	12,995	13,042	13,129	676	5.4%	34	0.2%
Commercial	2,779	3,038	3,190	3,340	3,490	711	25.5%	36	1.3%
Industrial	1,584	1,872	1,997	2,122	2,247	663	41.8%	33	2.0%
Public Authority ^a	1,130	1,141	1,152	1,164	1,175	45	4%	2	0.2%
Other ^a	51	95	97	99	101	6	NA	-	NA
Non-Revenue ¹	34	45	45	45	45	0	NA	0	NA
Unaccounted-for water ²	902	1,003	1,023	1,043	1,062	160	NA	8	NA
Total	18,932	20,062	20,458	20,855	21,249	2,255	11.9%	113	0.6%

^a Assumes growth in demand of 1% every 5 year period.

^a Estimated at 0.5% of sales, consistent with 2001-2005 average.

¹ Non-revenue water is assumed to remain constant at an average of 0.03 mgd. (2005 actual was lower.)

² Unaccounted-for water is assumed to average 5% of production throughout the planning period.

Sources: California American Water, City of Thousand Oaks, Donaldson Associates.

In normal water years, Calleguas Municipal Water District expects the water production requirement necessary to serve its 22 retail customers (who serve about 600,000 people) to increase from about 173,127 AFY in 2005 to about 234,267 AFY in 2030.¹ This production requirement would be met with a combination of imported water from Metropolitan Water District, local supplies

developed by MWD, and local supplies developed by CMWD and its member purveyors. Table 10 summarizes the average year supply and demand scenario for each 5-year milestone between 2005 and 2030.

<p style="text-align: center;">TABLE 10</p> <p style="text-align: center;">REGIONAL SUPPLY AND DEMAND COMPARISON</p> <p style="text-align: center;">Normal Precipitation Scenario</p> <p style="text-align: center;">5-Year Increments, 2010 – 2030</p> <p style="text-align: center;">(AFY)</p>						
Year	2005	2010	2015	2020	2025	2030
Projected Demand ^a	173,127	186,041	200,570	212,239	222,795	234,267
CMWD Local Supplies ^b	50,262	60,579	70,341	76,668	82,914	89,730
Import Demand on MWD	122,165	125,462	130,229	135,571	139,881	144,537
MWD Available Supply ^c	125,800	138,200	146,300	155,600	162,800	170,100
Surplus	3,635	12,738	16,071	20,029	22,919	15,563
Percent Surplus	3%	9%	11%	15%	14%	15%
<p>^a CMWD, 2005 UWMP, Table 3-3. This is an aggregation of projections from all 22 CMWD purveyors, including California American Water, Village District.</p> <p>^b CMWD, 2005 UWMP, Table 2-10. Includes supplies from CMWD and member purveyors combined.</p> <p>^c CMWD, 2005 UWMP, Table 5-2.</p>						

As can be seen in Table 10, the total projected supplies available are expected to increase more than demand, such that Calleguas will have a surplus of almost 23,000 AFY by 2025 during normal water year scenarios, decreasing somewhat by 2030.

¹ Calleguas Municipal Water District, 2005 UWMP, Table 3-3.

B. DROUGHT SCENARIOS

Both MWD and Calleguas are continuing to develop a number of new water supplies. MWD's programs involve water recycling, seawater desalination, surface and groundwater storage and management programs, and incentives for local supply projects. CMWD is working with other purveyors and agencies in Ventura County to develop a number of local recycling and groundwater development projects involving wastewater reclamation, brackish groundwater recovery, and regional salinity management programs.

Potential drought scenarios for the Calleguas Municipal Water District, and therefore, for all of its purveyors including the Village District, are shown in Tables 11 through 15. Two drought scenarios are assumed. The first is a single dry year with hydrology similar to that of 1977. The second scenario assumes multiple dry years with hydrology similar to the 1990 – 1992 three-year drought. The drought scenarios developed by CMWD all assume that demand will increase during dry years. The availability of local supplies and the MWD allocations to the CMWD service area change from period to period as new sources of supply are developed and placed into use.

As can be seen in Tables 10 through 14, it is not expected that the Village District customers will experience any water shortages that will result in a need to reduce consumption in the event of a single year drought or a multiple year drought in the next 25 years. A drought in the coming 5 years could result in a supply deficit for the Calleguas Municipal Water District, however, this potential shortage would be met by using available reserves, including groundwater from the Los Posas ASR project.

The District's Water Shortage Contingency Plan, which could be activated in the event of an unexpectedly severe drought or significant short term emergency, is described in Chapter VII of this report.

TABLE II
DROUGHT SCENARIOS: 2005 - 2010
SINGLE DRY YEAR AND MULTIPLE DRY YEARS
AFY

	Current Supply ^a	Single Dry Year ^b	Multiple Dry Years ^c		
			Year 1	Year 2	Year 3
Regional Demand	173,127	177,004	179,388	182,270	185,072
CMWD Local Supply	50,262	49,060	49,470	51,708	53,046
Imported Demand on MWD	122,165	127,944	129,918	132,933	135,954
MWD Allocation	125,600	107,300	122,800	125,360	127,920
Surplus (Deficit)	3%	(16%) ^d	(6%) ^d	(6%) ^d	(6%) ^d
Village District Reduction (%)	0%	0%	0%	0%	0%

^a CMWD, 2005 UWMP, Table 5-2.

^b CMWD, 2005 UWMP, Table 5-4. Assumes 1977 hydrology.

^c CMWD, 2005 UWMP, Table 5-6. Assumes 1990 - 1992 hydrology. Interpolated using 2005 and 2010 projections.

^d Deficit could be met by CMWD from available reserves or by using water stored in the Los Posas ASR Facility. CMWD, 2005 UWMP, Table 6-2.

TABLE 12
DROUGHT SCENARIOS: 2010 - 2015
SINGLE DRY YEAR AND MULTIPLE DRY YEARS
AFY

	Normal Year ^a	Single Dry Year ^b	Multiple Dry Years ^c		
			Year 1	Year 2	Year 3
Regional Demand	186,641	190,612	193,599	197,418	201,236
CMWD Local Supply	60,579	59,245	60,660	63,486	66,312
Imported Demand on MWD	125,462	131,267	132,939	133,932	134,925
MWD Allocation	138,200	147,200	135,600	141,525	147,500
Surplus (Deficit)	10%	12%	2%	5%	8%
Village District Reduction (%)	0%	0%	0%	0%	0%

^a CMWD, 2005 UWMP, Table 5-2. Year 2010.

^b CMWD, 2005 UWMP, Table 5-4. Assumes 1977 hydrology.

^c CMWD, 2005 UWMP, Table 5-6. Assumes 1990 - 1992 hydrology. Interpolated using 2010 and 2015 projections.

TABLE 13
DROUGHT SCENARIOS: 2015 - 2020
SINGLE DRY YEAR AND MULTIPLE DRY YEARS
AFY

	Normal Year ^a	Single Dry Year ^b	Multiple Dry Years ^c		
			Year 1	Year 2	Year 3
Regional Demand	200,570	205,449	208,874	211,944	215,104
CMWD Local Supply	70,341	68,987	71,963	73,537	75,111
Imported Demand on MWD	130,229	136,462	136,911	138,457	140,003
MWD Allocation	146,300	172,060	159,500	160,825	162,150
Surplus (Deficit)	12%	26%	16%	14%	14%
Village District Reduction (%)	0%	0%	0%	0%	0%

^a CMWD, 2005 UWMP, Table 5-2. Year 2015

^b CMWD, 2005 UWMP, Table 5-4. Assumes 1977 hydrology.

^c CMWD, 2005 UWMP, Table 5-6. Assumes 1990 - 1992 hydrology. Interpolated using 2015 and 2020 projections.

TABLE 14
DROUGHT SCENARIOS: 2020 - 2025
SINGLE DRY YEAR AND MULTIPLE DRY YEARS
AFY

	Normal Year ^a	Single Dry Year ^b	Multiple Dry Years ^c		
			Year 1	Year 2	Year 3
Regional Demand	212,239	217,504	221,353	224,144	226,935
CMWD Local Supply	76,668	75,163	78,260	79,819	81,378
Imported Demand on MWD	135,571	142,341	143,093	144,325	145,557
MWD Allocation	155,600	177,100	164,800	166,500	168,200
Surplus (Deficit)	15%	24%	15%	13%	13%
Village District Reduction (%)	0%	0%	0%	0%	0%

^a CMWD, 2005 UWMP, Table 5-2. Year 2020.

^b CMWD, 2005 UWMP, Table 5-4. Assumes 1977 hydrology.

^c CMWD, 2005 UWMP, Table 5-6. Assumes 1990 - 1992 hydrology. Interpolated using 2020 and 2025 projections.

TABLE 15
DROUGHT SCENARIOS: 2025 - 2030
SINGLE DRY YEAR AND MULTIPLE DRY YEARS
AFY

	Normal Year ^a	Single Dry Year ^b	Multiple Dry Years ^c		
			Year 1	Year 2	Year 3
Regional Demand	222,795	228,256	232,515	235,538	238,561
CMWD Local Supply	82,914	81,263	84,496	86,216	87,926
Imported Demand on MWD	139,881	146,993	148,019	149,321	150,623
MWD Allocation	162,800	208,400	171,600	173,525	175,450
Surplus (Deficit)	16%	42%	16%	14%	14%
Village District Reduction (%)	0%	0%	0%	0%	0%

^a CMWD, 2005 UWMP, Table 5-2. Year 2025.

^b CMWD, 2005 UWMP, Table 5-4. Assumes 1977 hydrology.

^c CMWD, 2005 UWMP, Table 5-6. Assumes 1990 - 1992 hydrology. Interpolated using 2025 and 2030 projections.

V. IMPLEMENTATION OF DEMAND MANAGEMENT MEASURES

A. INTRODUCTION

This chapter describes and evaluates California American Water's Urban Water Management Programs for the 2006 - 2010 period in the Village District. It describes the water conservation programs that are being implemented directly by the District and by California American Water cooperatively with other agencies pursuant to regional water management efforts, including the Calleguas Municipal Water District (CMWD), the wholesale supplier of water for the Village District, as well as the Metropolitan Water District of Southern California, which, in turn, provides a portion CMWD's water supply.

California American Water is one of approximately 340 California water providers that are signatory to the *Memorandum of Understanding regarding Urban Water Conservation in California* (MOU). California American is therefore a member of the California Urban Water Conservation Council (CUWCC). The MOU contains 14 demand management measures that signatories to the MOU agree to implement as part of their good faith efforts to optimize water savings. The CUWCC calls these demand management measures Best Management Practices (BMPs). In the *Urban Water Management Planning Act* they are termed DMMs (Demand Management Measures). The BMPs/DMMs are examples of sound water management practices that have been found to be cost effective and practicable in most instances throughout California. The BMPs are generally consistent with the water conservation practices that have been implemented by the Company under the existing *Urban Water Management Plan* (and in some cases, for much longer). Accordingly, the Village District's water conservation programs presented later in this chapter have been organized in a format that is consistent with the list of BMPs being implemented statewide by the CUWCC.

B. PREEXISTING WATER CONSERVATION PROGRAMS

The Village District of the California American Water Company has, in conjunction with other agencies including the Calleguas Municipal Water District and the Metropolitan Water District of Southern California, actively promoted water conservation initiatives by its customers and staff. The District's sales dropped by over 24% in response to water conservation initiatives instituted during the 1990 - 1993 drought and have only recently rebounded to past levels. Today, the District's on-going water conservation measures, some of which had been in place for many years, include the following:

1. Metering

All Cal-Am water connections are metered. Metering is recognized as sound urban water management practice as well as a basic water conservation measure (DMM 4). The District's sources of supply are also metered, and the supply meters can be cross-checked against sales data to allow the District to identify water lost in the transmission/distribution system. The District's supply source meters are tested once per year; customer meters are regularly replaced and recycled. Approximately 60% of customer meters are 10 years old or less while virtually none of the remaining are more than 15 years old.

2. Maintenance of Water Use Records by User Type

While the record keeping itself does not save water, the data it provides is fundamental to evaluating the effectiveness of water conservation programs. The water usage data can be used to identify high water using customers that have the greatest water saving potential. With this information, Cal-Am can better identify and target those customers to receive free water audits, rebates for water efficient appliances and other incentives.

3. System Pressure Control Program

The District manages water pressure throughout its system as required by CPUC regulations. The primary purpose of pressure regulation is to ensure that pressures are high enough to meet fire flow needs. However, if water pressure is too high, more water will be lost when fixtures leak or if water is inefficiently applied.

4. Leak Reduction

The amount of water lost in the transmission and distribution system is well below the industry standard of 10% — averaging about 4.5% of purchases over the past 10 years. The District endeavors to keep its water losses as low as possible through leak detection and pipeline replacement programs. Cal-Am is very aware of the benefits that can be gained from a water audit/leak detection and repair program and would institute active audits and distribution main surveys if unaccounted-for water were to increase appreciably.

Pipeline Replacements. The Company has a continuing capital investment program for the replacement of old and deteriorated pipelines, which account for most leaks. Between 2000 and 2005 the District spent an average of \$1,504,000 annually for transmission, distribution and service pipeline construction, a large portion of which involved the replacement of older pipes that are prone to leakage problems and have required frequent maintenance.

Free Customer Leak Detection Service. Upon request, Cal-Am personnel will check for water leakage in a customer's own plumbing system. The Division does not charge for this service. Cal-Am employees are also trained to alert customers to higher than normal usage. Many internal leaks have been fixed as a result of these contacts.

5. Plumbing Fixtures Retrofit Programs

Cal-Am, in conjunction with the Calleguas Municipal Water District and the City of Thousand Oaks, has implemented a series of plumbing fixture retrofit programs in the Village District during

Demand Management Measures

and following the drought beginning in 1990. Initially, these programs involved the distribution of retrofit kits which included "toilet tummies," and the distribution or direct installation of low flow showerheads and faucet aerators. Beginning in 1992, rebate programs for ultra-low flush toilets (ULFT) were initiated. District records indicate that between 1992 and 1995, more than 2,100 ULFT's and 1,200 low flow showerheads were installed. In the past 10 years it is estimated that another 2,700 ULFT's have been installed. These programs have been renewed annually.

The Calleguas Municipal Water District has also operated a successful program in which community based organizations are rewarded for recruiting new participants in the rebate program. This program has resulted in the installation of hundreds of ULF toilets for people who might not have otherwise participated. Under the District's current ULFT program, Cal-Am will pay a rebate of up to \$100 for the first ULFT and \$50 for the second.

6. Public and School Education

Since the 1977-78 drought, the District has implemented regular public education and information efforts related to water conservation and a wise use ethic. Programs and activities that have been undertaken have included:

- The on-going maintenance of a water conservation information and supply display in the District office where it can be seen by all visiting customers;
- Sponsorship of information kiosks at community and school fairs;
- Provision of free curriculum materials and other support for water education activities in schools, upon teacher request;
- Sponsorship of *Small Change Theater* programs with a water conservation theme at elementary schools in the District;
- Sponsorship of annual Poster Contests in local schools. Winning posters have been entered in regional contests;
- The sponsorship and support of annual science fairs in the schools with special recognition of projects investigating water conservation, water quality or water supply issues;

Demand Management Measures

- The distribution of water conservation inserts with customer's bills. The inserts have covered such topics as in-home leak detection, yard and garden watering tips, water reduction inside the home and water conservation trivia;
- The use of recorded water conservation "on hold" messages in the Company's telephone system;
- The provision of speakers on water supply and conservation issues to local service clubs, college classes and special interest groups;

In addition, all of Cal-Am's customer's are shown their past year's usage for the same period on each water bill when the information is available (i.e. when the account has been open for more than one year). This important information can be very effective in alerting customers to plumbing problems or changes in habits and may often generate a conservation response.

The Village District has indirectly benefited from the public education programs of other water agencies, including the City of Thousand Oaks, the County of Ventura, Metropolitan Water District, and the Calleguas Municipal Water District, because many of the District's customers have participated in these agencies' programs, seen their advertisements and heard their public service announcements.

The Company believes that all of these efforts not only improve the effectiveness of water conservation programs, but they will also prove beneficial during emergencies, when a more educated public is more understanding and cooperative in complying with any voluntary or mandatory actions that might be requested by the Company to restrict their water usage.

C. DEMAND MANAGEMENT PROGRAMS — 2006 – 2010

California American Water plans to implement additional conservation programs in several Best Management Practices (BMP) areas over the next three to five years. On-going and planned programs are described in the following sections, including program cost estimates (not including Wholesale agency program participation). New programs will implemented in a phased approach, and are designed to complement and maximize the effectiveness of the current and future conservation programs conducted by the Metropolitan Water District of Southern California

(MWD) and the Calleguas Municipal Water District (CMWD) in the Village District service area. California American Water will be requesting approval from the California Public Utilities Commission (CPUC) to establish a Memorandum Account to track conservation program expenses for future cost recovery in water rates. Future program implementation will be dependent on approval by the CPUC of program expenditures in future water rates proceedings.

DMM 1. WATER SURVEY PROGRAMS FOR SINGLE-FAMILY AND MULTI-FAMILY RESIDENTIAL CUSTOMERS (BMP 1).

BMP 1: Implementation shall consist of at least the following actions:

Develop and implement a strategy targeting and marketing water use surveys to single-family and multi-family residential customers.

Directly contact not less than 20% of single-family and 20% of multi-family residential customers each reporting period.

Surveys shall include indoor and outdoor components.

Customers shall be provided with results.

Track survey offers, completions, results and costs.

In accordance with Company policy, California American Water currently offers residential interior and exterior water audits to customers requesting them. A small number of requests are honored every year.

In addition, Cal-Am's billing and customer service personnel routinely conduct an informal "Alert, Check and Control" auditing program. This program has been internally developed in conjunction with the standard meter reading and billing process. The Company's billing system has been programmed to scan the meter reading data and compare it with past usage data. Any anomalies (high or low) in the data are noted (the Alert) and the appropriate customer service representatives are informed. Typically, when abnormally high usage is recorded, the customer will be contacted and a Cal-Am technician may visit the site, verify the meter reading and look for obvious leaks or problems (the Check). The customer is then notified that he/she should expect a higher bill and is offered assistance in identifying and correcting any problems (the Control). In the past, a number of malfunctioning toilets, faucets and irrigation devices have been discovered in this way.

2006-2010 IMPLEMENTATION: California American Water will continue to offer residential water audits to customers requesting them, free of charge. The Company's "Alert, Check and Control" program will continue as a part of the District's regular operating procedures. The Company will increase customer awareness of these free services through bill inserts and messages, promotion at local community events and the Company website. During 2006 California American Water will offer numerous water conservation training workshops for Customer Service Field and Office Staff, Meter Readers and other staff that regularly interact with customers. These training workshops will provide Company staff the tools and knowledge to successfully help customers save water through the on site water audits and Alert, Check and Control program.

In addition, the Company plans to implement a Residential 3-year pilot level program to evaluate the performance of weather-based ET irrigation controllers. A total of 25 residential homes in the Village District will have ET controllers installed upon completion of an onsite audit. All participating residents will receive a water use survey/audit of their home (indoor and outdoor). In addition, in keeping with BMP 2 (below), all applicable low-flow devices will be installed during the onsite audit. When applicable, Pilot Study participants will also be given rebate applications for ULFT toilets and high efficiency clothes washers (BMPs 6 and 14), educational materials on low water use landscape design and irrigation. Lastly, each participating resident will be provided a rebate for the installation of an ET-based irrigation controller. Rebates ranging from \$100 to cover a portion of the costs up to the full cost of an ET controller plus installation will be provided to participating customers, depending on the program budget approved by the CPUC.

2. DMM 2. RESIDENTIAL PLUMBING RETROFIT (BMP 2)

BMP 2: Implementation shall consist of at least the following actions:

Develop a targeting and marketing strategy to distribute or directly install low-flow showerheads, toilet displacement devices, toilet flappers and faucet aerators to single-and multi-family residences constructed prior to 1992.

Maintain distribution and/or direct installation programs so that devices are distributed to not less than 10% of single-family connections and multi-family units each reporting period or require through an enforceable ordinance the replacement of high-flow showerheads and other water using fixtures with their low-flow counterparts, until it can be demonstrated that 75% are retrofitted.

Demand Management Measures

Cal-Am has been providing free water conservation kits and low flow showerheads to customers requesting them for over fifteen years. During the drought in the early 1990's the Cal Am and the City of Thousand Oaks distributed thousands of home retrofit kits in conjunction with their respective water conservation initiatives. In 2004, the Company offered residential plumbing retrofit devices and leak detection/conservation kits to all customers through a billing insert promotion. Customers who responded received kits containing a positive shut off hose nozzle, a water conserving showerhead, a soil moisture meter, a lawn-watering gauge to measure irrigation system output, and dye tables to detect toilet tank leaks.

2006-2010 IMPLEMENTATION: California American Water has expanded the residential plumbing retrofit kits to include new innovative devices that have recently become available. This allows California American Water customers to receive the newest in water efficient technologies so as to maximize the water use efficiency throughout their home and business. New water conserving devices include garden hose auto-shut off timer connectors for customers that use a hose sprinkler to irrigate, specialty sized faucet aerators for old homes with non-standard sized plumbing fixtures, as well as other devices and tools for specific customer needs. High quality water saving devices recommended through the California Urban Water Conservation Council (CUWCC), Department of Water Resources (DWR), Irrigation Association (IA) and other well regarded organizations will be reviewed each year to incorporate into the Company's inventory of water savings tools for customers. Over the next five years the Company will continue to incorporate new irrigation nozzles, spray heads, flow restrictors and other devices, as their effectiveness is demonstrated, to best help customers save water.

California American Water will make the water conserving kits available to any customer requesting them, and will offer them to all new customers. At least once or twice a year during the 5-year term of this Plan, the Company will again promote the availability of the retrofit kits through bill inserts or other similar means. The kits will also be offered at community events and by company personnel investigating complaints about high water bills.

In addition, as part of the pilot residential audit program described above, residential customers that receive audits will be provided appropriate low-flow devices such as showerheads, toilet displacement bags, and faucet aerators.

3. DMM 3. DISTRIBUTION SYSTEM AUDITS AND LEAK DETECTION AND REPAIR (BMP 3)

BMP 3: Implementation shall consist of at least the following actions:

Annually complete a prescreening system audit to determine the need for a fullscale system audit.

When indicated, complete a distribution system audit using methodology consistent with the American Water Works Association's "Manual of Water Supply Practices, Water Audits and Leak Detection.

Advise customers whenever it appears possible that leaks exist on the customer's side of the meter; perform system leak detection when warranted and repair leaks when found.

California American Water has an established *Water Loss and Leak Detection Policy*¹ that is followed by California American Water personnel when conducting routine fieldwork. Leaks found are prioritized and scheduled for repair as quickly as possible. Larger leaks are given higher priority, while the largest leaks are considered emergencies and are repaired as quickly as the personnel and equipment can be mobilized.

During the 1990's, the District experienced chronic weaknesses and frequent failures in a type of PVC service lateral, of which there were many in the Village District service area. The District decided to replace these pipes with copper pipes, an effort that has undoubtedly reduced the number of leaks and the volume of water lost to leakage. In addition, Cal-Am has routinely invested in distribution pipeline replacement projects giving priority to older pipelines or those with a history of leaks.

The level of unaccounted-for water in the Village District has been averaging about 4.6% of purchases since 1987, less than half as much as the industry standard for acceptable distribution system efficiency of 10% unaccounted-for water. The 10% standard is also the threshold level for a

¹ California-American Water Company, *Distribution Policy 7, Water Loss Control and Leak Detection*, adopted by the Board of Directors, May 9, 1988.

system audit under this BMP.

2006-2010 IMPLEMENTATION: BMP 3 requires system audits when unaccounted-for water exceeds 10% of production, a level the District has not exceeded in many years, if ever. Based on this, the District considers itself to be in compliance with BMP 3.

However, California American expects to continue making major capital investments in ongoing pipeline replacement programs, as it believes these programs have had a major role in improving the efficiency of the respective distribution systems and in reducing water losses.

The level of unaccounted-for water will be regularly calculated and additional measures, such as water audits, will be initiated if water losses rise appreciably. The staff will continue to remain alert to possible leaks on the customer's side of the meters and to advise customers whenever major anomalies appear in the customer's rate of consumption.

4. DMM 4. METERING WITH COMMODITY RATES (BMP 4)

CURRENT PROGRAM. Cal-Am's Village District is fully metered and all customers are billed on the basis of a set service charge per meter plus a volume of use charge. The current authorized volume of use charge is \$2.3901 per hcf unit (1 hcf unit = 748 gallons).

IMPLEMENTATION: This BMP is being fully implemented.

5. DMM 5. LARGE LANDSCAPE CONSERVATION PROGRAMS AND INCENTIVES (BMP 5)

BMP 5: Implementation shall consist of at least the following actions:

Provide non-residential customers with support and incentives to improve their landscape water use efficiency. This support shall include the following:

Identify accounts with dedicated irrigation meters and assign Eto-based water use budgets.

Provide notices each billing cycle to accounts with water use budgets showing the

Demand Management Measures

relationship between budget and actual consumption.

Develop and implement a strategy targeting and marketing large landscape water use surveys to CII accounts with mixed-use meters. Each reporting period, directly contact via letter or telephone not less than 20% of such accounts and offer water use services.

Provide information on climate-appropriate landscape design, efficient irrigation equipment/management to new customers and change of service customer accounts.

Recommended actions:

Install climate appropriate water efficient landscaping at water agency facilities.

Provide customer notices prior to the start of the irrigation season alerting them to check their irrigation systems and make repairs as necessary. Provide notices at the end of the irrigation season advising them to adjust their irrigation system timers and irrigation schedules.

The largest landscape irrigators in the Village District include the school districts, which irrigate athletic fields and school playgrounds, and the City of Thousand Oaks, which operates a Municipal Golf Course and irrigates parks.

The District believes that the cost of water, which is based on volume of use, provides a very strong customer incentive for the careful application of water to large landscaped areas. For example, in about 1993 the City of Thousand Oaks developed supplemental supplies, including untreated groundwater, for its Golf Course. The Golf Courses' consumption of imported, Cal-Am water has subsequently dropped dramatically.

2006-2010 IMPLEMENTATION: Some of the largest water use customers in the Village District are Commercial, Institutional, and Industrial (CII) customers with large landscaped areas to irrigate. These customers provide significant conservation opportunities although upgrading such facilities with water efficient devices and technologies can require a substantial investment that many CII customers will not consider without some financial incentive.

Through MWD's TAP and other financial assistance programs potentially funded by the Company, California American Water plans to initiate a Pilot Program that would offer grants of up to \$10,000 per site to large landscape and commercial customers to install water-conserving devices.

Demand Management Measures

The program will be implemented by conducting in-depth audits of selected facilities that result in specific recommendations for installation of devices and technology, water management changes, and the development of an annual water budget for each participating facility. The program will prioritize the largest water users in each service area. Implementation of the pilot program will be phased-in over the 2006-2008 period. It is anticipated that the projected California American Water program expenditures listed below would be approximately matched by expenditures by the wholesale water agencies that provide water to the District's service areas. To assess the magnitude of water savings, California American Water will evaluate water sales data for the participating customers before and after the audits. This data will be used in determining whether the program should be expanded to include more landscape customers in the future. The District's Conservation Coordinator will develop and implement a program to identify the largest CII accounts with mixed-use meters to identify candidates for the installation of separate irrigation meters. Once identified, water use surveys and the installation of separate irrigation meters will be offered to these customers, with appropriate follow-up as suggested in BMP 5. Unfortunately, the high cost to install a dedicated-irrigation meter on CII site often deters business owners. California America Water's Conservation staff will evaluate the cost for installing dedicated irrigation meters at key large water using CII sites and determine if a cost-effective plan is possible. The Company will work with applicable CII businesses to install dedicated irrigation meters and assist in seeking alternative funding including grants and funding assistance from MWD.

California American Water will also be promoting weather-based irrigation scheduling and landscape design for large landscape (LL) and CII-Mixed Use customers. Through bill inserts and messages, community events and special presentations to LL and CII customer organizations (Chamber of Commerce, Homeowners Associations, Landscapers and Gardener groups, etc.) the Conservation staff will promote climate appropriate landscape design and irrigation management. In addition, the Company will develop a strategy to publicize free resources and services available to customers to help them more efficiently manage their landscape irrigation including the California Irrigation Management Information System (CIMIS) program and weather station network. Currently, there are several operating CIMIS weather stations with the Village District's region that provide daily ETo and micro-climate data that customers can use to schedule irrigation timers.

6. DMM 6. HIGH-EFFICIENCY WASHING MACHINE REBATE PROGRAM (BMP 6)

BMP 6: Implementation shall consist of at least the following actions:

Until January 1, 2007, the water agency shall offer financial incentive, if cost effective, for the purchase of high-efficiency clothes washing machines (HEWS) meeting a water factor of 9.5 or less.

Any financial incentive offered shall be not less than the marginal benefits of the water savings, reduced by the necessary expense of administering the incentive program. A program is not required if the agency determines that the maximum cost-effective incentive is less than \$50.

California American Water, in conjunction with MWD, has an on-going program of rebates for high efficiency washing machines available to customers of the Village District. Rebates of up to \$100.00 are provided for qualifying appliances (i. e. high efficiency clothes washers with a 9.5 Water Factor or less). The Company works with CMWD to coordinate regional program marketing and rebate reimbursement with MWD. In mid-2006, California American Water will apply the updated MWD efficiency standards to offer rebates for washers with a water factor of 6.0 or less. In addition, all the qualified clothes washers with a 6.0 water factor (and 9.0 water factor) models are approved Energy Star models under the California Energy Efficiency (CEE) standard listing for energy efficiency.

2006-2010 IMPLEMENTATION: California American Water plans to implement a multimedia campaign to promote both the HEWS rebate program through 2006, in accordance with BMP 6. It is expected that rebates for residential customers will be processed in the local office, while rebates for CII customers will be integrated into the MWD's *Save a Buck* program and processed by MWD's contractor, Honeywell DMC. In 2007, both the HEWS and ULFT rebate programs will be evaluated to determine if the marketing efforts were successful in increasing participation and whether additional marketing should be undertaken 2007 and beyond. Depending on MWD funding and allocated program budget by CPUC, California American Water may increase the rebate to encourage higher customer participation. Based on 2005 records, the current rebate amount seems to be sufficient as program participation goal were met.

7. DMM 7. PUBLIC INFORMATION (BMP 7)

BMP 7: Implementation shall consist of at least the following actions:

Implement a public information program to promote water conservation and conservation related benefits.

Program should include providing speakers to community groups and the media; using paid and public service advertising, using bill inserts; providing information on customers bills showing use in gallons per day for the last billing period compared to the same period the year before; providing public information to promote other water conservation practices; and coordinating with other governmental agencies, interest groups and public interest groups.

California American Water and its regional partners, including the MWD, and the Calleguas Municipal Water District (CMWD) cooperate in on-going public information and education efforts to encourage water conservation and water use efficiency. California American Water's independent efforts include printing water conserving tips on bill inserts or text messages on the water bills approximately 2-4 times yearly and printing comparisons of current period water use with use during the same period in the previous year on each water bill. The Company also makes speakers available for informational presentations at neighborhood meetings, service clubs, and other community events. California American Water also benefits from some of the public information efforts sponsored by other water purveyors serving nearby areas and from the extensive conservation-related public information activities of MWD's External Affairs Group, which has a large Speakers Bureau, and active media, community and governmental relations programs.

2006-2010 IMPLEMENTATION: The public information activities that are currently being implemented will be carried forward in this Plan. They include all of the implementation programs suggested in BMP 7, e. g. speakers to community groups, public service announcements, bill inserts, past usage information on bills, continued distribution of water conservation information and coordination with other public agencies and interest groups.

The Company plans to disseminate water conserving messages via bill inserts and bill text messages at least 2 – 4 times per year. In addition, the Company will participate in one or more community events and programs each year to promote water conservation and water resources issues. Participation will include sponsorship, a table/booth at the event, handouts of conservation

Demand Management Measures

literature, and promotion of other California American and wholesale agencies' BMP programs. The Company will also support its partners including the MWD, CMWD and the City of Thousand Oaks in developing and implementing their public information programs over the coming 5 years, and will work to ensure that the respective programs reinforce each other.

In addition, these programs will be expanded and the public information efforts intensified in the event of a water shortage, as defined in Chapter VI, the *Water Shortage Contingency Plan*.

All public education and outreach efforts will be tracked in a database for the annual CUWCC BMP Reporting. In addition, California American Water will track the number of conservation kits and low flow devices given out to customers at various public events and when possible log the specific residence or business the devices were given out to. Such efforts will help the Conservation staff to determine which neighborhoods have been saturated and those that should be aggressively marketed to promote the ULFT and washer rebate programs.

8. DMM 8. SCHOOL PROGRAMS (BMP 8)

BMP 8: Implementation shall consist of at least the following actions:

Implement a school education program to promote water conservation and conservation related benefits.

Programs shall include working with the school districts and private schools in the water supplier's service area to provide instructional assistance, educational materials and classroom presentations that identify urban, agricultural, and environmental issues and conditions in the local watershed. Education materials shall meet the state education framework requirements, and grade appropriate materials shall be distributed to grade levels K-3, 4-6, 7-8 and high school.

The Village District is within the service area of the Metropolitan Water District of Southern California (MWD) and the Calleguas Municipal Water District, a member of MWD. The MWD operates an extensive region-wide water education program that offers age/grade appropriate materials to schools within the MWD service area. Its educational program has been designed to meet state education framework requirements, and grade appropriate materials are offered to all

grade levels from K through 12th. The elementary level programs include:

In-service

Some of the programs that Metropolitan provides require teachers to participate in an in-service or workshop. This in-service allows the teacher to become familiar with the materials and terminology used in the program. These workshops are provided by Metropolitan staff.

Kindergarten through 3rd Grade -- *All About Water*

All About Water is a book that contains water activities and experiments involving water conservation, water quality, water distribution, the water cycle, and fresh and salt water.

4th Grade -- *Admiral Splash*

This program teaches about the water cycle, the history of southern California's water supply, the distribution system, water uses and water conservation.

5th Grade -- *Waterways*

Waterways is a recent addition to Metropolitan's education programs that addresses the history of water in the United States.

6th Grade -- *California Smith, Water Investigator*

This program informs students about water supply and distribution in California, contemporary water issues, and water conservation.

The H2O Shows

Three different assembly programs are offered: 1) for Grades K-2, a flannel board presentation of the water cycle, a water cycle song and a discussion about water conservation; 2) for Grades 3-4, a slide presentation of the use of California's water resources by early Native Americans to the present day, a water conservation game, the Water Tap Rap and a film; and, 3) for Grades 5-6, a slide presentation of how water is imported from the Colorado River to Metropolitan's service area, a water conservation game, the Water Tap Rap and a film.

The educational programs at the secondary level include:

Grades 9-12 -- *Water Highways*

This unit is designed primarily for biology and environmental science courses. The student assesses the positive and negative impacts of California's State Water Project upon fisheries, wildlife, the land, the economy, and the people.

Grades 7-12 -- *Water Quality*

Developed for physical science, chemistry and biology classes, the unit involves hands-on activities. The student, as a water quality lab technician, analyzes four water samples, detects any problems, identifies potential causes, and proposes solutions.

Grades 9-12 -- *Water Politics*

This program is designed for government, economics and environmental science classes. This unit consists of case studies relating to contemporary water issues. Through critical thinking and role playing, students will investigate the role of federal, state and local governments, water agencies, and interest groups (business, agricultural, environmental) in making water management decisions. There is also a "Water Forum" that is held in which the students are given scenarios and need to address the issues and offer solutions before a panel of water industry experts. This program has been revised and is now being offered as the primary High School program.

Grades 9-12 -- *Water Trade-Offs*

Designed for economics classes, the unit involves a cost/benefit analysis of a proposed trade-off between two water agencies. Participating students are introduced to basic fundamentals of economics in a "real world" framework.

2006-2010 IMPLEMENTATION: Throughout the term of this UWMP, the Village will continue to support, and benefit from, the regional water education programs sponsored by its wholesalers including the MWD, and the CMWD. The primary objective of California American Water's efforts related to BMP 8 will be to ensure that the schools in the Village District service areas are adequately represented and participating in the MWD/CMWD programs. Toward that end, California American will provide a list of schools and contacts to MWD; coordinate and attend meetings with MWD and schools to promote the program; communicate/correspond with Program Coordinators to keep updated on the programs; regularly send correspondence to schools and

participating teachers to maintain interest in the programs; complete annual school surveys (by students, staff, and faculty) on the program effectiveness.

9. DMM 9. CONSERVATION PROGRAMS FOR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL (CII) ACCOUNTS (BMP 9)

BMP 9: Implementation shall consist of both (a) and (b) and either (c) or (d):

- (a) Identify and rank CII accounts according to water use;*
- (b) Implement a program to accelerate replacement of high-water using toilets with ULFTs in CII accounts;*
- (c) Implement a CII Water-use Survey and Customer Incentives Program such that 10% of the CII accounts are surveyed within 10 years of the date of implementation;*
- (d) Achieve a water use reduction in CII sectors equaling or exceeding 10% of the baseline (1997) use over a 10-year period.*

In 1999, MWD developed a pilot program for a regional effort to market, manage and pay rebates to Commercial, Industrial and Institutional water users to implement effective water conservation devices. Based on the pilot program, a vendor-administrated regional program, called *SAVE WATER, SAVE A BUCK*, began in 2004. Rebate incentives available under this program are shown in Table 16.

The *SAVE WATER, SAVE A BUCK* program has focused packages of rebates and benefits targeted at specific types of business operations including restaurants, hotels and motels, supermarkets, Laundromats, medical facilities and commercial buildings.

2006-2010 IMPLEMENTATION: The Village District has about 740 commercial accounts, 175 industrial accounts and 175 institutional (public authority) accounts. In aggregate, these customers account for about 30% of total water sales. Many CII customers of California American Water could benefit from the *SAVE WATER, SAVE A BUCK* program. MWD's Save a Buck "is an aggressive rebate program tailored specifically for the Commercial Sector. Rebates and incentives are available to business, industry and institutional water customers" (<http://www.mwdsaveabuck.com/>). The rebate incentive program offers rebates for numerous water saving devices including pre-rinse spray valves, high efficiency clothes washers, x-ray machines, cooling tower conductivity controllers

and other common industry devices. In January of 2006, MWD's Board of Directors approved an overall increase of all CII rebates to encourage more customers to participate. Table 16 shows the rebate amounts for each of the water saving devices and appliances for all applications received by MWD (Program Administrator Honeywell DMC) as of December 13, 2005.

TABLE 16 SAVE WATER, SAVE A BUCK CII REBATE INCENTIVES (EFFECTIVE DECEMBER 13, 2005)	
Device Type	MWD Rebate Amount
ULFT (tankless and flushmate) 1.6	\$135
Dual-Flush Valve	\$165
Upgrade from ULFT to Dual-Flush	\$165
High Efficiency Toilet (tank or fulsome) 1.28 gpf	\$165
Urinal (1.0 gpf)	\$60
Waterless Urinal	\$400
Pre-Rinse Spray Valve	\$60
High Efficiency Clothes Washer	\$130
Water Broom	\$150
Cooling Tower Conductivity Controller	\$625
Cooling Tower PH Controller	
X-Ray Film Processor Recirculation System	\$1,900
	\$3120

Accordingly, California American Water will develop a program to market the available MWD rebates for CII customers through promotional mailings and bill inserts or bill messages targeted to its commercial, industrial and institutional accounts. To help its retailers market the *SAVE A BUCK* program, MWD has created industry rebate packages that combine all applicable water saving devices for an industry such as food service, hospitals, etc. These packages will be provided with the audit report and recommendations for every CII site audited by California American Water.

The Company will also consider a program of supplemental rebates to augment the rebates available under the *SAVE WATER, SAVE A BUCK* program, so as to encourage further participations. For example, schools, hospitals and other institutions often have inflexible budgets that prevent them from investing in water saving equipment, even with MWD's rebates. California American Water will work with such facilities to identify additional funding opportunities through grants and MWD's Performance Pays program.

In addition, as described under DMM 5 above, California American Water will develop a pilot CII and Large Landscape Audit and grant program for the CII customers within its service areas with the largest landscaped areas. The program will select up to 10 sites within California American Water's southern region service area, which includes the Village District, Coronado/Imperial Beach and the Los Angeles District (Duarte, Baldwin Hills and City of San Marino).

10. DMM 10. WHOLESALE AGENCY ASSISTANCE PROGRAMS (BMP 10)

BMP 10: Implementation shall consist of at least the following actions:

Wholesale water suppliers shall provide financial incentives, or equivalent resources, as appropriate, beneficial and mutually agreeable to their retail water agency customers to advance water conservation efforts and effectiveness.

This demand management BMP requires wholesale water suppliers to provide financial incentives, or equivalent resources, to their retail water agency customers for the advancement of water conservation efforts.

2006-2010 IMPLEMENTATION. Since the Village District is not a wholesale water supplier, this BMP would not be applicable. The Village District will receive wholesaler assistance from Calleguas Municipal Water District, which is the direct member agency of MWD. Calleguas administers rebate reimbursement from MWD to their retailer agencies and coordinates regional program marketing and promotional efforts.

11. DMM 11. CONSERVATION PRICING (BMP 11)

BMP 11: Implementation shall consist of at least the following actions:

Implementation methods shall be at least as effective as eliminating non-conserving pricing and adopting conserving pricing. For signatories supplying both water and sewer service, this BMP applies to pricing of both water and sewer service. Signatories that supply water but not sewer service shall make good faith efforts to work with sewer agencies so that those sewer agencies adopt conservation pricing for sewer service.

The Village District currently has water-conserving, volume of use, pricing for all categories of customers. The current rate is \$2.3901 per hcf unit (748 gallons). Volume of use charges are added to a basic service charge which is dependent on the size of the meter. The rates charged for water are subject to periodic review and revision by the Company, subject to PUC approval.

Cal-Am does not provide sewage treatment for customers in the Village District. Sewage treatment is provided by the City of Thousand Oaks. The sewage rate structure is based on a set flat rate for some user categories and on a plumbing fixture count for other categories, although the two largest industrial accounts are billed on a volume-generated basis. Accordingly, for the vast majority of customers, the rate structure is not a volume of use rate. Currently, there are no plans to implement a volume of use rate for the City as a whole.¹

2006-2010 IMPLEMENTATION: California American Water will continue to maintain volume of use pricing. In its next rate case filing with the CPUC, the Company will propose rate structure changes that will further encourage water conservation through increased emphasis on volume of use pricing. It is important to emphasize that no changes in rates or the rate structure can be implemented unless the California Public Utilities Commission authorizes them in advance.

The Company has no jurisdiction over sewage treatment rates, but will encourage more aggressive conservation pricing if the opportunities arise.

¹Kathy Beamer, Thousand Oaks Public Works Department, personal communication, February 12, 2001.

12. DMM 12. CONSERVATION COORDINATOR (BMP 12)

BMP 12: Implementation shall consist of at least the following actions:

- a) Designation of a water conservation coordinator and support staff (if necessary), whose duties shall include the coordination and oversight of conservation programs and BMP implementation, preparation and submittal of Council BMP Implementation Reports, and communication and promotion of water conservation issues to agency senior management, coordination of agency conservation programs with operations and planning staff; preparation of annual conservation budget; participation in the California Urban Water Conservation Council; and preparation of the conservation elements of the agency's Urban Water Management Plans.*
- b) Agencies jointly operating regional conservation programs are not expected to staff duplicative and redundant conservation coordinator positions.*

In 2005, the Company created and staffed a position of Conservation Coordinator for its California operations. This employee has overall responsibilities for managing the water conservation activities in all of the California American Water's California service areas, preparing and tracking water conservation budgets, overseeing the data collection and BMP fulfillment reporting, and communication with senior management regarding water conservation issues and related water conservation activities.

The Water Conservation Coordinator will be assisted in the implementation of water conservation programs at multiple levels of the Company's operations. For example, the Company's centralized billing operations will participate in customer communications involving water use information, bill inserts, bill messages and special mailings. The central call center staff will be the primary responders for distributing water conservation devices and processing rebate applications. Operations personnel at the respective Districts will be responsible for gathering production and sales data, water loss reduction efforts, participating in local events, coordinating with staff from cooperating agencies, etc. Customer Service staff in Newbury Park will have a stock of water saving devices and guidebooks available to walk-in customers and upon request. The local office staff is also responsible for maintaining the ULFT and clothes washer rebate program database for residential customers. Village District staff coordinates with the California American Water Conservation Coordinator to gather the appropriate data and information for the annual BMP

reports to the CUWCC.

2006-2010 IMPLEMENTATION: During the term of this Plan, the Company will expand the role of the Conservation Coordinator to better integrate conservation activities into the overall operations of the Village District, and its California operations, as a whole. The Company will consider adding an additional conservation staff position in the Newbury Park office to help implement the conservation programs as the need arises.

California American Water is also offering numerous internal water conservation training workshops to all customer service staff and any other appropriate staff that interact regularly with customers. Training workshops will include training on basic indoor and outdoor water saving tips, overview of rebate programs, incentives and other services available to customers, and onsite audit procedures. These internal workshops are designed to create an experienced and knowledgeable internal staff that can assist customers and offer cost-effective water saving recommendations. Additional training will be offered to select customer service field and office staff through the CUWCC, AWWA, Irrigation Association (IA) and other applicable organizations.

13. DMM 13. WATER WASTE PROHIBITION (BMP 13)

BMP 13: Implementation methods shall be enacting and enforcing measures prohibiting gutter flooding, sales of automatic (self regenerating) water softeners, single pass cooling systems in new connections, nonrecirculating systems in all new conveyer car washes and commercial laundry systems and non-recycling decorative water fountains.

The California Public Utilities Commission, through General Order 103, has authorized regulated water purveyors to discontinue service to any customers who are flagrantly wasting water. This authority is also explicitly granted to the Company in Rule 11 B, (3) of the Company's tariffs. Rule 11 B, (3) permits the Company to terminate service "where negligent or wasteful use of water exists" as long as the practices have not been remedied within 5 days of giving the customer written notice to such effect.¹ Typically, Company staff would personally document at least three violations

¹ California-American Water Company, Rule 11, § B, (3), effective July 6, 1993.

before turning off a customer's water supply.

In addition, the Calleguas Municipal Water District has adopted a Resolution requiring all of its purveyors, including Cal-Am, to prohibit wasteful uses of water including hosing down of walkways, driveways and patios, the washing of vehicles without a shutoff nozzle and bucket, non-recycling fountains, the serving of water at a restaurant unless requested, uncorrected leaks, landscape irrigation during peak hours and excessive landscape irrigation run-off.¹ The City of Thousand Oaks has also adopted these "no waste" restrictions.

The mandatory water rationing programs that have been adopted by the District and by the Thousand Oaks and Ventura County during past droughts have contained even more stringent prohibitions against waste.

2006- 2010 IMPLEMENTATION: California American Water will continue to enforce Rule 11 and the CMWD/City of Thousand Oaks water waste prohibitions. The Company will also enforce any future water waste prohibitions that may be implemented pursuant to any voluntary or mandatory water rationing plans. The company will also include tips for avoiding water waste in conservation bill inserts and messages for California service areas, including the Village District. Bill messages will include recommended salt-free water softeners and alternatives to high water using and wasteful cleaning /washing of cars and driveways, and other recommendations to help reduce water waste.

14. DMM 14. ULTRA LOW FLUSH TOILET REPLACEMENT (BMP 16)

BMP 14: Implementation shall consist of at least the following actions:

Implementation of programs for replacing existing high-water- using toilets with ultra-low-flush toilets (1.6 gallons or less) in single family and multi-family residences.

Programs shall be at least as effective as requiring the replacement at the time of resale.

California American Water Village District residential customers are currently eligible for ULFT rebates of \$75 for all approved ULFTs that use 1.6 gpf or less. California American Water will be

¹ Calleguas Municipal Water District, Resolution 772, June 15, 1988.

Demand Management Measures

providing residents \$75 for dual flush, 1.28 gpf and 1.0 gpf high efficiency toilets (HETs). All CII customers are eligible to receive rebates (\$135 for 1.6gpf and \$165 for dual flush and 1.28gpf) through MWD's *SAVE A BUCK* Program.

In addition, the Calleguas Municipal Water District, and its purveyors, including Cal Am, have co-sponsored a number of ULFT distribution programs by community based organizations. Under these programs the community based organization (such as a High School booster club, or a seniors group) market the program and distribute the toilets. A monetary contribution is made to the organization at the end of the program, usually \$15 per retrofit.

2006-2010 IMPLEMENTATION: The Company plans to implement a multi-media campaign to promote and market the ULFT rebate programs available to Village District customers. The Company will evaluate customer participation levels in 2006 to determine if additional rebates will be offered to customers by the Company in 2007 and 2008 in order to increase program participation. Participation from 2004 through 2005 shows that the current rebate amount has produced sufficient customer participation in the ULFT rebate program.

In June of 2006 MWD will limit the rebate reimbursement to member agency (and subsequently to local retailers) for ULFTs and dual flush that are on the approved performance list. These ULFT and dual flush models has been Maximum Performance Testing scored and meet the Unified North American Requirements (UNAR) for performance and quality standards. California American Water will follow the same guidelines for residential rebates as well to ensure quality ULFTs are installed within the District's service area.

15. WASTEWATER DISPOSAL AND WASTEWATER RECLAMATION OPPORTUNITIES

Currently there are no reclaimed water projects that can provide non-potable water service within in the Village District's service area. However, a portion of the wastewater generated by the District's customers is reclaimed at the City of Thousand Oaks Hill Canyon Treatment Plant. This water reclamation project was developed by the Calleguas Municipal Water District in conjunction with other local agencies. It supplies reclaimed water for the irrigation of farmland, a golf course, parks, highway medians, and other landscaped areas.

Demand Management Measures

In coming years, the Calleguas MWD plans to develop a number of projects involving wastewater reclamation, brackish groundwater recovery, and regional salinity management.¹ All of these proposed projects could have indirect benefits for the Village District by reducing the extent to which the District is dependent upon imported water, as opposed to water from local sources. For example, the Renewable Water Resources Management Program for the southern reaches of Calleguas Creek Watershed is an integrated set of facilities that will involve improving water quality of local supplies through the managed transport of salts out of the watershed. There are three major elements to the project: water resource reclamation, salts management and adaptive management. It is to be implemented in four phases, extending over a period of years.

The Village District indirectly benefits from Calleguas' efforts to reclaim wastewater and expand and maintain local groundwater resources, because they improve the operating efficiency of the regional water supply system and help provide back-up sources of supply in the event that flows from the State Water Project are interrupted.

IMPLEMENTATION: Cal-Am will continue to support efforts of the Calleguas Municipal Water District, the City of Thousand Oaks and other local agencies to develop wastewater reclamation programs, and will join in their implementation if it appears feasible and beneficial for the District and its customers.

D. IMPLEMENTATION PROGRAM AND SCHEDULE

Table 17 summarizes Cal-Am's implementation program for the *Urban Water Management Plan*. The implementation program is based on a five-year time horizon, beginning with 2006. The schedule is intended to provide general guidance to the Company for the enactment of the water conservation programs described in this report. As discussed in the previous section, Cal-Am is joining with the Calleguas Municipal Water District, MWD and/or other water purveyors to sponsor and implement

¹Calleguas Municipal Water District, *Draft Urban Water Management Plan*, September 2005, Section 2-2.

Demand Management Measures

many of the Demand Management Measures (BMPs). These include Public Information and School Programs (BMPs 7 and 8), HEWS and ULFT rebate programs (BMPs 6 and 14), Large Landscape Water and Commercial/Industrial/Institutional Conservation programs (BMPs 5 and 9). The Company will maintain full flexibility in funding and scheduling the various programs, and the implementation schedule may be modified as a result of new developments or changes in conditions. As required by State law, the entire plan will be reviewed after five years.

TABLE 17

IMPLEMENTATION PLAN SUMMARY

<i>DMM #</i>	<i>Program</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>
1.	Residential Water Surveys	D	D	○	○	○
2.	Residential Plumbing Retrofit	E	○	○	○	○
3.	System Water Audit, Leak Repairs	○	○	○	○	○
4.	Metering with Commodity Rates	○	○	○	○	○
5.	Large Landscape Conservation	D	D	○	○	○
6.	High-Efficiency Washing Machine Rebates	○	○	○	○	○
7.	Public Information Program	○	○	○	○	○
8.	School Programs	○	○	○	○	○
9.	CII Water Conservation	E	○	○	○	○
10.	Wholesale Agency Assistance	NA	NA	NA	NA	NA
11.	Conservation Pricing	○	○	○	○	○
12.	Water Conservation Coordinator	E	○	○	○	○
13.	Water Waste Prohibition	○	○	○	○	○
14.	Ultra Low Flush Toilet Replacement	○	○	○	○	○

Key to Symbols:

○ = Ongoing Program

D = Develop Program

E = Expand Program

NA = Not Applicable

VII. WATER SHORTAGE CONTINGENCY PLAN

A. INTRODUCTION

Section 10632 of the California Water Code requires *Urban Water Management Plans* to include the preparation of a water shortage contingency analysis. The first part of the *Water Shortage Contingency Plan* presented in this chapter describes the Village District's plan for responding to a sudden water shortage or water quality emergency such as might occur in the event of significant system damage from a major earthquake, or during a prolonged power outage, or in the event of a water quality emergency from bacteriological or chemical contamination of the water supply. The second part of the plan describes the District's planning to address potential long-term water shortage conditions that could occur following one or more years of low precipitation (a drought).

B. WATER SUPPLY EMERGENCY RESPONSE

The Village District has a written Emergency Response Manual, designed to provide guidance and direction for the activities of the District's staff both during a water supply or water quality emergency and in mobilizing the post disaster response.¹ The purpose of the plan is to provide a guide for procedures, operations, resources and communications under extraordinary emergency situations.

The foundation of the emergency response program is the Incident Command System (ICS) which was developed by fire services and has become a proven and effective disaster management approach. The plan is written as a tool for ICS team members to guide their actions towards the continuance of proper service or the restoration of service.

The District maintains an equipped Emergency Operations Center (EOC) with necessary supplies, back up power, telephone connections, and radios for communication with field staff. Depending

¹California-American Water Company, Village District, Emergency Response Manual, Revision date 1/19/00.

Water Shortage Contingency Plan

on the size of the emergency incident the staffing of the EOC could run from one to six people. The EOC can be activated by any employee in the event of a District emergency, such that normal operational resources are likely to be insufficient to manage the emergency or disaster.

The Incident Commander, who is typically the first person at the EOC until relieved by someone more senior, holds the leadership responsibility in the EOC. The other personnel functions could include, depending on staffing availability and the severity of the incident, the following: a Plans Chief, who would focus on developing action plans to bring the emergency to an end; an Operations Chief, responsible for tactical command and coordination of incident response assets; a Logistics Chief, responsible for marshaling personnel, supplies, and materials needed to support the response effort; a Finance Chief, to keep records and track costs incurred by Cal-Am during the incident; and a Public Information Officer, who is charged with media contacts and with keeping the EOC staff apprised of what is being reported in the media. The EOC is equipped with labeled storage boxes for each of these functions containing checklists, supplies and reference materials necessary to fulfill the job function.

The Emergency Response Manual also contains guidance for communications and media relations, protocols for logging information and reporting to the Incident Commander in an emergency and during recovery, accounting instructions, and instructions for post-disaster communications with customers and other agencies involved in the emergency response effort.

Finally, the Emergency Response Plan includes a vulnerability assessment with worksheets to guide preparedness for a variety of plausible emergency situations that could significantly affect the District's water supply or water quality. These include severe storms/flooding, extended loss of electric power, a major fire or explosion, a major earthquake, civil disturbance, sabotage, or a severe localized drought.

C. STAGED RESPONSE PLAN FOR WATER SUPPLY SHORTAGES

The Village District adopted a three-phase water rationing plan in 1991, under the authority granted by the CPUC in Rule 14.1. This water rationing plan serves as the model for the District's *Water Shortage Contingency Plan* as described in this chapter. *The Water Shortage Contingency Plan* is intended to be compatible with the comparable Plan adopted by the Calleguas Municipal Water District, which supplies all of the water sold by the Village District. In the event of a water shortage emergency, the Village District will coordinate its response with CMWD and will also work with adjacent purveyors, including the City of Thousand Oaks and the California Water Service Company, to develop and promote a coordinated and consistent regional response to the emergency.

Estimate of Minimum Supply. Cal-Am has the right to purchase all of the potable water needed by its customers from the Calleguas Municipal Water District. The Company's agreements with CMWD do not provide for any specific restrictions on the quantity of water that can be purchased in a given year. However, Cal-Am has always cooperated fully with CMWD requests to encourage and/or require conservation during periods of water shortage.

The MWD has initiated a number of water supply planning and management activities in the past decade along with a comprehensive capital improvement program involving the development of a variety of local water management projects including conjunctive use facilities and recycled water systems. With the development of new local supplies and regional demand management activities, it is Calleguas' goal to "drought proof" the region and ensure adequate water supplies in the event imported water deliveries are curtailed by drought or interrupted by short term emergencies.

Stages of Action in the Event of Water Supply Shortages. Cal-Am has developed a three-phase water rationing plan pursuant to Rule 14.1 of the California Public Utilities Commission.¹ The plan

¹See Appendix A.

Water Shortage Contingency Plan

was adopted in 1991 and Phase II restrictions were implemented a short time thereafter in response to CMWD's water shortage declarations.¹ The overall plan remains in place and a Phase I, II or III Rationing Program could be implemented, as appropriate, in response to a finding that a water shortage exists.

The Water Management Plan adopted by the Calleguas Municipal Water District is based upon the Metropolitan Water District's 1999 Water Surplus and Drought Management Plan. Under this plan, MWD will consider the level of supplies available and the existing levels of water in storage to determine the appropriate management stage for that year. Each stage is associated with specific resource management actions designed to: 1) avoid an Extreme Shortage to the maximum extent possible; and 2) minimize adverse impacts to retail customers should an "extreme shortage" occur. Under this Plan, MWD only expects to require water rationing for full service customers in the "extreme shortage" situations, although it would be considered as a fall back option in a "severe shortage". In a water "shortage" MWD expects to be able to meet all full service demands and most interruptible demands.

Accordingly, it is possible that Cal-Am's Rule 14.1 Rationing Plan, described below, would only have to be implemented in the event of an "extreme shortage" or as a final response to a "severe shortage" circumstance.

The three phases of the Rule 14.1 Plan are described below.

Phase I: This is voluntary (non-punitive) conservation program with a goal of 10% reduction in consumption over previous twenty-four months (the "historical base period") Under this program certain wasteful, nonessential uses of water would be prohibited, including:

1. Use of water to wash sidewalks and other hard surfaces;
2. Car and motor vehicle washing without a positive shutoff nozzle;

¹On April 3, 1991, in Resolution # 809, CMWD required each purveyor to adopt a mandatory water rationing program.

Water Shortage Contingency Plan

3. Use of water in fountains and for aesthetic purposes unless they have a recycling system;
4. No restaurant drinking water service unless expressly requested;
5. Plumbing leaks must be repaired in 48 hours;
6. Lawn and landscape watering on odd/even days and between 5:00 pm and 10:00 am;
7. No water runoff from landscaped areas.

It is not expected that Cal Am would have to implement its Phase I plan unless the CMWD is in a Stage 3 shortage condition, as defined in their 2005 UWMP. CMWD expects to be able to maintain normal water deliveries to its wholesale customers by maximizing deliveries from MWD and beginning withdrawals from the Los Posas Aquifer Storage and Recovery Project in the event of a 0 to 15% water shortage (CMWD Stages 1 and 2). CMWD would only call on its purveyors, such as Cal Am, to promote voluntary conservation in the event of a Stage 3 Shortage, which is defined as a 15% to 33% drop in normal supplies. Based on past experience, Cal-Am believes that its customers could achieve a 10% conservation goal with a voluntary program, which should be sufficient considering dry year supply options that available to MWD and CMWD.

Phase II: Phase Two would be a mandatory 10% - 20% conservation program, measured against a base period of the 24 previous months. The exact level of conservation would be determined by Cal-Am based on CMWD (and MWD) determinations as to the severity of the water shortage. Water waste would be prohibited, as it would under Phase I, however, the water use restrictions would be broader. Changes would include:

1. The amounts of permissible lawn and landscape watering would be cut back from every second to every fourth day;
2. Commercial nurseries, golf courses and other water dependent industries would be limited to irrigation on every second day between 6:00 pm and 8:00 am;

Water Shortage Contingency Plan

3. Water for construction projects, including dust control, would be limited to amounts specified in a water use plan and would have to be non-potable (recycled), if available.

Cal-Am's Phase II Contingency Plan could be tailored to conform with the high end of the Stage 3, or with Stage 4 water shortage conditions described in the CMWD 2005 UWMP. The goals applicable to the Village District could be 10% to 20% reductions depending upon the severity of the water shortage, although every customer would be allowed a minimum allocation of 15 hcf units.¹

The Phase II program would be enforced with the imposition of excess use fees, which in 1991 were set at \$2.00 per hcf unit. Before excess use fees would be imposed, the Company would apply credits for unused units (below 15 ccf) from previous billing periods. That is to say, previous conservation savings (below 15 units) would be banked for possible use in future months.

Phase III: The Third Phase water rationing program would consist of mandatory water rationing of 20% or greater measured against a base period of the previous 24 months. Again, the exact level of conservation would be determined by Cal-Am depending on the requirements adopted by CMWD. This Phase would have a lower minimum allocation of 13 hcf units per 30-day billing period.² It would involve all of the water use restrictions in Phases I and II augmented by the following additional requirements:

1. Irrigation watering would only be permitted between 6:00 pm and 6:00 am, every fourth day;
2. Commercial nurseries, golf courses and other water dependent industries would be limited to irrigation on every third day between 6:00 pm and 6:00 am;

¹The CMWD and MWD Plans provide for more severe restrictions on non-firm (primarily agricultural) deliveries. These would not be applicable to the Village District, as it has no agricultural connections.

²The CMWD Plan indicates that the District would provide a minimum health and safety allocation in the range of 57 - 85 gpcpd. This is the equivalent of only 7 - 10 hcf/month. It would be required in only the most dire circumstances.

Water Shortage Contingency Plan

3. The use of water from fire hydrants would be limited to fire fighting and other public health, safety and welfare uses.

The excess use fee for the Phase III program would be \$3.00 per hcf unit over the allocated amount. Banking of unused amounts below the minimum allocation of 13 hcf units per month would be permitted and would be credited in future months before an excess use charge would be levied.

Cal-Am's Phase II and III programs would include enforcement mechanisms of escalating severity beginning with written warnings followed by the installation of flow restricting devices (after three monthly violations), plus the payment of special fees for their removal, leading, ultimately, to the termination of service. Appeal procedures for customers seeking variances or exceptions would also be established.

The Phase III program would be implemented in response to a declaration by CMWD that a Stage 5, 6 or 7 water shortage is present. As noted in CMWD's 2005 UWMP, it would represent a call for extraordinary conservation efforts.

A Stage IV, Water Emergency Response Plan:

Although not a part of the Cal-Am's Rule 14.1 Plan, the Company also has a planned response to a sudden failure of a supply or distribution facility, as for example following a major earthquake. A Stage IV response could be implemented by the appropriate governmental authorities, including CMWD, the City of Thousand Oaks and Ventura County, in conjunction with Cal-Am. A Stage IV alert would involve very stringent reductions of outdoor use:

1. Landscape irrigation would be prohibited, except to protect rare or exceptionally valuable plants or animals;
2. Water use at commercial nurseries would have to be reduced by 50%.
3. Water use by commercial car washes would have to be reduced by 50%. All other vehicle washing would be prohibited.
4. On golf courses, only greens could be watered.

Water Shortage Contingency Plan

5. Water could not be used for ornamental fountains or for swimming pools, spas, artificial lakes, etc.
6. No construction water meters or permits for unmetered service would be issued.
7. Water could not be used to wash down paved surfaces, nor could it be served in restaurants, except by request.

Mandatory Provisions to Reduce Water Use. Each of the three Phases of water rationing includes mandatory prohibitions against non-essential use of water. The prohibitions become increasingly broad in response to increasingly severe water shortages. The Phase I (voluntary), the Phases II and III (mandatory) water rationing programs and the Stage IV Emergency Response Plan all incorporate mandatory restrictions on the use of water for washing sidewalks and other paved surfaces, for vehicle washing, for non-recycling fountains and other aesthetic water features, a prohibition on automatic water service in restaurants, increasingly stringent restrictions on landscape watering and a prohibition on landscape irrigation runoff to streets and sidewalks.

The Phase II or Phase III water shortages and Stage IV, Emergency Response, would incorporate additional mandatory reductions such as stringent irrigation restrictions for commercial nurseries and golf courses, limitations on the use of water for certain construction purposes, and the prohibition of the use of water from fire hydrants for other than essential health, safety and welfare reasons.

Consumption Limits. The Division's response to any recognized water shortage requiring the adoption of a mandatory water rationing program would include a percentage reduction from the amount consumed in the preceding 24 month base period, although a minimum monthly lifeline allocation of 15 hcf units in Phase II and 13 hcf units in Phase III would be permitted.

Penalties or Charges for Excess Use. The Water Shortage Contingency response would involve the adoption of excess-use charges for the mandatory rationing phases (II and III). In a Phase II program the charges would be \$2.00 per hcf unit over the allocation. In Phase III the excess-use charge would increase to \$3.00 per overage unit.

Water Shortage Contingency Plan

Impacts on Revenues and Expenditures. Cal-Am must follow the rules and regulations of the CPUC when recovering lost revenue due to mandatory water conservation. Procedures to permit special drought memorandum accounts were set up in the early 1990's and are now in effect. Cal-Am will continue to work with the CPUC to maintain revenues that are both beneficial to the customers and to the company.

Revenue from excess use charges would also be held in a separate reserve account for eventual disposition as authorized by the CPUC.

Draft Ordinance. As noted, Cal-Am does not have the authority to adopt resolutions or ordinances. However, both Thousand Oaks and Ventura County have adopted ordinances implementing past water rationing programs that are compatible with the Phase I and II programs set forth in Rule 14.1. Furthermore, the Calleguas Municipal Water District has an adopted *Urban Water Management Plan* and has the authority to adopt ordinances implementing rationing programs pursuant to it.

Any water rationing program that would be implemented by Cal-Am would be designed to conform to the CPUC Rule 14.1 and any applicable ordinances affecting the Village District and its customers.

Mechanism For Determining Actual Reductions. Since all Cal-Am customers are metered and the sources of supply are metered, the Company is able to measure the effectiveness of any water shortage contingency plan that is implemented. Data can, as it currently is, being collected by the Company on a regular basis and can be regularly evaluated to determine the effectiveness of the overall response to a water shortage.

In a water shortage period, Cal-Am can generate comparisons of current consumption data to compare with data from a corresponding billing period 12 or 24 months previous, as appropriate. The Company can also review customer's records against past data for compliance with the adopted reduction goal in terms of percentage reduction or in terms of the minimum lifeline allocation then in effect. A list of all non-complying customers can be developed for appropriate enforcement action.

APPENDIX A

Rule 14.1

Water Rationing Plan - Village District

CALIFORNIA-AMERICAN WATER COMPANY
2602 HOOVER AVENUE, P.O. Box 1627
NATIONAL CITY, CALIFORNIA 92050

ORIGINAL

C.P.U.C. SHEET NO. 2077-W

CANCELLING

C.P.U.C. SHEET NO.

Rule No. 14.1

WATER RATIONING PLAN - VILLAGE DISTRICT

GENERAL INFORMATION

Because of the limited water supply conditions prevailing in Ventura County and in California in general, the general welfare requires that the water resources available for supply to customers be put to maximum beneficial use and that the unreasonable use, or unreasonable method of use of water be prevented and that the conservation of such water be practiced and encouraged.

A. DEFINITIONS

As used in this water rationing plan, the word;

1. "Company" means the California-American Water Company;
2. "District" means the Village District service area of the California-American Water Company;
3. "Person" means any individual, person, firm, partnership, association, corporation, company, organization or governmental entity;
4. "Customer" means any person who uses water supplied by the Company in this District;
5. "Water" means water supplied by the Company;
6. "Authorizing agency" means any agency who supplies to, controls or allocates the water supply to the Company or any governmental body which authorizes the Company to produce and sell water in the service area;
7. "Historical base period" means the twenty-four (24) month period beginning January 1, 1989 and ending December 31, 1990.
8. "Water shortage condition" means the conditions which constitute a determination by the authorizing agency that deliveries of potable water supplies have reached a level such that all water suppliers are being requested to reduce the use of water by a given amount.

B. WATER SHORTAGE CONDITION - PHASE IMPLEMENTATION

This mandatory water conservation plan will become effective when a water shortage condition is declared and will be implemented in the three following phases:

(continued)

(TO BE INSERTED BY UTILITY)
ADVICE LETTER NO. 367
DEC. NO.

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D.P. STEPHENSON
NAME
DIRECTOR-RATES & REVENUES

(TO BE INSERTED BY C.P.U.C.)
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Rule No. 14.1 (continued)

WATER RATIONING PLAN - VILLAGE DISTRICT

3. WATER SHORTAGE CONDITION - PHASE IMPLEMENTATION (continued)

Phase I:

Phase I will consist of mandatory water use restrictions and voluntary water conservation of less than 10%. This phase will become effective upon notification by the authorizing agency that water usage should be reduced by less than 10%.

Phase II:

Phase II will consist of mandatory water use restrictions and mandatory water rationing of at least 10% but less than 20%. This phase will become effective upon notification by the authorizing agency that water usage should be reduced by at least 10% but less than 20%. The authorized allocation to the customers will be based on the percentage reduction requested by the authorizing agency in the following formula:

$$100\% \text{ less requested reduction} = \text{allocation}$$

Phase III

Phase III will consist of mandatory water use restrictions and mandatory water rationing of at least 20%. This phase will become effective upon notification by the authorizing agency that water usage should be reduced by at least 20%. The authorized allocation to the customers will be based on the percentage reduction requested by the authorizing agency in the following formula:

$$100\% \text{ less requested reduction} = \text{allocation}$$

C. PROHIBITION OF NONESSENTIAL OR UNAUTHORIZED WATER USE

Phase I -The following water use restrictions shall be in effect and will be enforced on all customers during a Phase I shortage:

1. No person shall hose wash any sidewalk, walkway, driveway, parking area or other paved surfaces, except as is required for sanitary purposes.
2. Washing of motor vehicles, trailers, boats and other types of mobile equipment shall be done only with a hand held bucket or a hose equipped with a positive shutoff nozzle for quick rinses and the water flow shall be shut off when not rinsing the vehicle, except that washing may be done at the immediate premises of a commercial car wash.

(continued)

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RESOLUTION NO.

Rule No. 14.1 (continued)

WATER RATIONING PLAN - VILLAGE DISTRICT

C. PROHIBITION OF NONESSENTIAL OR UNAUTHORIZED WATER USE (continued)

Phase I (continued)

3. No water shall be used to clean, fill or maintain levels in decorative fountains, ponds, lakes or other similar aesthetic structures unless such water is part of a recycling system.
4. No restaurant, hotel, cafe, cafeteria or other public place where food is sold, served or offered for sale, shall serve drinking water to any customer unless expressly requested by that customer.
5. All customers shall promptly repair all leaks from indoor and outdoor plumbing fixtures within forty-eight (48) hours of discovery.
6. All lawns, landscape or other turf areas are to be irrigated in accordance with applicable City/County ordinances establishing mandatory water conservation measures. In county areas outside the jurisdiction of a local ordinance, or if no ordinance exists, irrigation restrictions defined in local ordinances within the bounds of the District's service territory shall apply.
7. No person or customer shall cause or allow water to run off landscaped areas onto adjoining streets, sidewalks or other paved areas due to incorrectly directed or maintained sprinklers or as the result of excessive watering.

Phase II- The following water use restrictions shall be in effect and will be enforced on all customers during a Phase II shortage:

1. All of the restrictions listed under Phase I shall be in effect.

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Rule No. 14.1 (continued)

WATER RATIONING PLAN - VILLAGE DISTRICT

C. PROHIBITION OF NONESSENTIAL OR UNAUTHORIZED WATER USE (continued)

Phase II (continued)

- 2. No customer shall cause, use or permit the use of water for any purpose in an amount in excess of ninety percent (90%) of the average daily amount used on the customer's premises during the corresponding billing period of the historic base period; however, no customer shall be required to reduce consumption below 15 Ccfs' per 30 day period. Allocations falling between full hundreds of cubic feet will be rounded upward to the larger amount.
- 3. Any customer who was not a customer during the historical base period, shall be assigned an average daily usage amount which corresponds to the usage of a similar premises.
- 4. The use of water from fire hydrants shall be limited to fire fighting and related activities and other uses of water for municipal purposes shall be limited to activities necessary to maintain the public health, safety and welfare.

Phase III- The following water use restrictions shall be in effect and will be enforced on all customers during a Phase III shortage:

- 1. All of the restrictions listed under Phase I shall be in effect.
- 2. No customer shall cause, use or permit the use of water for any purpose in an amount in excess of eighty percent (80%) of the average daily amount used on the customer's premises during the corresponding billing period of the historic base period; however, no customer shall be required to reduce consumption below 13 Ccfs' per 30 day period. Allocations falling between full hundreds of cubic feet will be rounded upward to the larger amount.
- 3. Any customer who was not a customer during the historical base period, shall be assigned an average daily usage amount which corresponds to the usage of a similar premises.
- 4. The use of water from fire hydrants shall be limited to fire fighting and related activities and other uses of water for municipal purposes shall be limited to activities necessary to maintain the public health, safety and welfare.

(continued)

Rule No. 14.1 (continued)

WATER RATIONING PLAN - VILLAGE DISTRICT

C. PROHIBITION OF NONESSENTIAL OR UNAUTHORIZED WATER USE (continued)

Phase III (continued)

Exceptions to restrictions

1. Commercial car washes with water recycling systems and commercial laundries shall be exempt from allotment restrictions.
2. The restricted uses of water provided for herein are not applicable to that use of water necessary for public health and safety, for the essential health care services or governmental services such as police, fire and other similar public emergency services.
3. Any use of ground water or reclaimed water shall be exempt from restrictions.

D. EXCESS WATER USE PENALTY

Phase II:

An excess use penalty of \$2 per 100 cubic feet of water used in excess of the applicable allocation during each billing period shall be charged by the Company for all service rendered on and after the effective date of this tariff, except that such penalty shall not apply to any customer and/or dwelling unit whose consumption is 1500 cubic feet or less per billing period per dwelling unit, nor to any customer whose total consumption to date during the period this rationing plan has been in effect does not exceed his total allocated usage for said period.

Phase III

An excess use penalty of \$3 per 100 cubic feet of water used in excess of the applicable allocation during each billing period shall be charged by the Company for all service rendered on and after the effective date of this tariff, except that such penalty shall not apply to any customer and/or dwelling unit whose consumption is 1300 cubic feet or less per billing period per dwelling unit, nor to any customer whose total consumption to date during the period this rationing plan has been in effect does not exceed his total allocated usage for said period.

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Rule No. 14.1 (continued)

WATER RATIONING PLAN - VILLAGE DISTRICT

D. EXCESS WATER USE PENALTY (continued)

Any monies collected by the Company through penalty charges shall not be accounted for as income, but shall be accumulated by the Company in a separate reserve account for the disposition as directed or authorized from time to time by the California Public Utilities Commission.

E. ENFORCEMENT

1. The Company may, after one written warning, install a flow-restricting device on the service line of any customer observed by Company personnel to be using water for any nonessential or unauthorized use as defined above. The restricting device may be removed only by the Company, only after a two-day period has elapsed, and only upon payment of the removal charge set forth below. After the removal of such device, if any such nonessential or unauthorized use of water shall continue, the Company may install a flow-restricting device which shall remain in place for a period of not less than two weeks or until this water rationing plan shall terminate and until the appropriate charge for removal set forth below shall have been paid to the Company. However, if despite installation of such flow-restricting device pursuant to the provisions of the previous sentence, any such nonessential or unauthorized use of water shall continue, then the Company may discontinue water service to such customer. In such latter event, a charge as provided in Rule No. 11 shall be paid to the Company as a condition to restoration of service. It is the intent of the Company that restriction devices will not be installed in a customer's service due to exceeding a monthly quota if the customer's accumulated usage does not exceed his accumulated allocation beginning with bills rendered after the effective date of this tariff. However, upon three or more violations of a customer's monthly quota a restricting device may be installed.

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Rule No. 14.1 (continued)

WATER RATIONING PLAN - VILLAGE DISTRICT

E. ENFORCEMENT (continued)

2. The charge for removal of a flow-restricting device shall be:

<u>Meter Size</u>	<u>Removal Charge</u>
5/8" to 1"	\$25
1-1/2" to 2"	\$50
3" and larger	Actual cost

F. APPEAL PROCEDURE

Any customer who seeks a variance from any of the provisions of this water rationing plan shall notify the Company in writing, setting forth in detail the grounds for a variance. The Company shall respond to each such request within fifteen (15) days. Additionally, a customer notified of a failure to comply with the water use allotment provisions shall have the right to a hearing conducted by the Company, provided that a written request for hearing is filed within fifteen (15) days after receipt of the notice of failure to comply. The hearing shall be held within fifteen (15) days of the request. Any customer not satisfied with the Company's response may file with the staff of the Commission requesting relief. The customer and the Company will be notified of the disposition of such appeal by letter from the Executive Director of the Commission. If the customer shall disagree with such disposition, he shall have the right to file a formal complaint with the Commission. Except as set forth in this Section F, no person shall have the right or claim in law or in equity, against the Company because of, or as a result of, any matter or thing done or threatened to be done pursuant to the provisions of this water rationing plan.

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