CALIFORNIA AMERICAN WATER

MONTEREY DISTRICT

URBAN WATER MANAGEMENT

AND

WATER SHORTAGE CONTINGENCY PLAN

2006 - 2010

California American Water
303 H Street, Suite 250
Chula Vista, CA 91910

Monterey Office
50 Ragsdale Drive
Monterey, CA 93940

FEBRUARY 2006 REVISION

CERTIFICATE OF RESOLUTION
CALIFORNIA-AMERICAN WATER COMPANY

Patricia A. Lyman, Secretary of California-American Water Company, hereby certifies that the following is a true and correct copy of a resolution duly adopted by the Board of Directors at their meeting held on April 13, 2006, in accordance with law and the Bylaws of said Corporation, that said resolution has not been amended and that it is still in full force and effect:

Resolved, *that the California Urban Water Management Planning Act, as amended, requires urban water suppliers to prepare plans that describe and evaluate reasonable and practical efficient water uses, water recycling, and conservation activities;*

Resolved, *that the Company has previously prepared and adopted three Urban Water Management Plans for each of its urban districts in the State;*

Resolved, *that it is now time to prepare new Urban Water Management Plans for the Los Angeles, Coronado, Village, Monterey, and Sacramento districts and the same have been prepared and presented to this Board;*

Resolved, *that the new plans shall incorporate water conservation initiatives previously adopted by each district since the enactment of the previous Urban Water Management Plans as well as Water Shortage Contingency Plans as required by law;*

Resolved, *that the new Urban Water Plans 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, and such local agencies as required of each district;*

Resolved, *that public hearings have been held in each district to provide an opportunity for public comment;*

Resolved, *that this Board believes it to be in the best interests of the Company to adopt Urban Water Management Plans in each of its districts in the State to provide the framework for future water supply development and demand management actions to ensure adequate water supplies for customers now and in the future;*

Resolved, *therefore, that each of the following Urban Water Management Plans for the Company's districts be, and they hereby are, adopted and ratified:*

- Coronado District Urban Water Management Plan 2006-2010
- Village District Urban Water Management 2006-2010
- Northern District Urban Water Management Plan 2006-2010
- Monterey District Urban Water Management Plan 2006-2010
- Los Angeles District Urban Water Management Plan 2006-2010

***Resolved**, that the officers of the Company file each such Urban Water Management Plan with the Office of Water Use Efficiency in the Department of Water Resources, the California Public Utilities Commission, the California State Library, and such local agencies as required of each district;*

***Further Resolved**, that the officers of the Company be, and each of them hereby is, authorized and directed to do and perform, or cause to be done and performed, all such acts, deeds and things, including retaining outside counsel to advise it, and to make, execute and deliver or cause to be made, executed and delivered all such agreements or documents in the name of or on behalf of the Company or otherwise as each such officer may deem necessary or advisable to effectuate or carry out fully the purposes or intent of the foregoing resolution and of the waiver contemplated thereby, without further authority or approval by the Board of Directors of the Company, the taking of any such actions in the execution and delivery of such agreement and documents to be conclusive evidence of the authority therefore.*

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed the corporate seal of California-American Water Company this 24th day of April 2006.

Patricia A. Lyman
Secretary

MONTEREY DISTRICT
URBAN WATER MANAGEMENT
AND
WATER SHORTAGE CONTINGENCY PLAN

2006 - 2010

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December 2004
Revised February 2006

APPENDIX

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I. INTRODUCTION

This report has been prepared in compliance with the Urban Water Management Planning Act, as amended.[1] It is an update of previous *Urban Water Management Plans* for the Monterey District of the California American Water Company, the first was adopted in 1990, followed by two updated Plans, one adopted in 1996 and another in 2000.[2]

This *Urban Water Management Plan* has been prepared for the Monterey District of the California American Water under the terms of AB 797 (1983) and subsequent amending legislation. It incorporates the water conservation initiatives that the District has adopted under the terms of the *Memorandum of Understanding Regarding Urban Water Conservation in California* (MOU), to which the District 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).

This update to the *Urban Water Management Plan* will also fulfill a requirement imposed upon the Company by the Monterey Peninsula Water Management District (MPWMD) in Ordinance 92 adopted on January 28, 1999.

Upon adoption, the Plan will be filed with the Monterey Peninsula Water Management District, the Office of Water Use Efficiency in the Department of Water Resources and the California Public Utilities Commission. A public hearing will be held in Monterey to provide an opportunity for public comment prior to final adoption.

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

[2]California American Water Company, Monterey District, *Water Management Program*, adopted December 1990; California American Water Company, Monterey District, *Urban Water Management and Water Shortage Contingency Plan, 1995- 2000*, adopted July 1996; California American Water Company, Monterey District, *Urban Water Management and Water Shortage Contingency Plan, 2005- 2010*, adopted in December, 2000.

II. DESCRIPTION OF THE MONTEREY DISTRICT

A. CALIFORNIA AMERICAN WATER

California American Water is a public utility company, operated as a subsidiary of American Water, headquartered in Voorhees, New Jersey. American Water, 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 Districts in California, which are, from north to south, Sacramento, Larkfield, Felton, Monterey (comprising systems in Monterey, Ryan Ranch, Hidden Hills, Bishop, Ambler Park, Chualar and Ralph Lane), Village, Los Angeles (comprising systems in Baldwin Hills, San Marino and Duarte), and Coronado. The Sacramento, Larkfield and Felton systems were acquired by the Company in January 2002, when California American Water purchased all of the assets of the Citizen's Utilities Company of California. American Water Works provides many of the senior management, financial, operations, personnel and customer services for California American Water from the corporate office in Voorhees, NJ and administrative offices in Chula Vista, CA , Sacramento, CA and Phoenix, AZ. Water quality testing and research is undertaken at the American Water laboratory in Belleville, IL, while bacteriological monitoring is conducted locally in Monterey's state certified laboratory.

The operations of California American Water in California are regulated by the California Public Utilities Commission (CPUC). The Company must comply with the rules, regulations and decisions of the CPUC. Other State agencies with regulatory oversight of specific aspects of the Company's operations include the Department of Health, the Department of Water Resources, the State Water Resources Control Board, and the Department of Fish and Game.

In addition, aspects of the Company's operations in the Monterey District are regulated by the Monterey Peninsula Water Management District (MPWMD), which was chartered by the State Legislature in 1977. The MPWMD is empowered to manage available surface and groundwater

Communities served by the Monterey District include the Cities of Monterey, Carmel-by-the-Sea, Del Rey Oaks, Pacific Grove, Sand City, portions of Seaside and the unincorporated communities of Carmel Valley, Pebble Beach, Del Monte Forest, Carmel Highlands, Robles Del Rio, Rancho Fiesta, Ryan Ranch, and Hidden Hills/Bay Ridge, Bishop Ranch and Ambler Park/Rim Rock, Rancho El Toro Country Club, Laguna Seca Ranch Estates. See Figure 2.

California American Water's Monterey District serves approximately 125,000 people, providing over 85 percent of the urban water supplies for the Monterey Peninsula.[1]

C. CLIMATE

The Monterey Bay area has a semi-arid Mediterranean climate typified by moderate to warm summers and mild winters. The combined effects of topography and marine influence result in substantial variations in climate between coastal and inland areas only a few miles apart. The average annual maximum temperature in Monterey is 5.4° lower than in Carmel Valley while average minimum temperature in Carmel Valley is 3.9° lower than in Monterey. The warmest months of the year in Monterey are September and October, while the warmest months o fhte year in Carmel Valley are August and September. December and January are the coldest months in both locations. As shown in Table 2, the average daily maximum temperature in September in Monterey is 71.9° while in Carmel Valley it is 79.5°. In January, the average minimum temperature in Monterey is 43.3°, while Carmel Valley is cooler, at 38.8°.

The average annual precipitation is 19.72 inches in Monterey, while it is 12% lower, at 17.39 inches in Carmel Valley. Virtually all of the precipitation is rainfall, with about 90 percent falling between November and April. Rainfall amounts vary widely from year to year, and from one location to another. Precipitation records for Monterey show a low of 8.95 inches in 1953 and a high of 41.01 inches in 1998; while in Carmel Valley the record low year was 1961, with 8.88 inches and the record high was 28.42 inches in 1969.

[1] The population is estimated by Cal Am. The service area boundaries are not contiguous with boundaries of political jurisdictions or census tract boundaries, and the actual population served has not been tabulated by any State or local governmental entities.

The Monterey District serves customers located on the coastal plain, the eastern and western slopes of the coastal mountains and the some inland valleys. Elevations range from sea level to over 900 feet. As a result, the service area is located where three or four reference evapo transpiration zones blend together. Pacific Grove, Carmel and parts of Monterey are in the Coastal Plain, Heavy Fog Belt Zone (Zone 1); while portions of Monterey, Del Rey Oaks and other areas are in Zones 2 and 3 (Coastal Plains and Valleys), while Carmel Valley and locations along the Highway 68 corridor are in the Upland Central Coast evapo-transpiration zone (Zone 6). The Eto Rates for Zones 1, 2 and 3(averaged) and 6 are shown in Table 2.

D. WATER SUPPLY AND FACILITIES

The Monterey District is California American Water's largest and most diverse operation. Unlike California American Water's other systems, and most areas in California, Monterey is totally dependent on local rainfall and groundwater supplies to meet the needs of its customers. San Clemente and Los Padres Dams, located some 18 and 25 miles inland, capture rainfall and watershed runoff. The Carmel River is an additional source of supply as are thirty-nine wells, which draw from the Carmel Valley and Seaside Aquifers. These sources of supply are described in greater detail below.

1. SURFACE WATER SOURCES

The Carmel River receives runoff from the northern and western slopes of the Santa Lucia Range and the Sierra de Salinas Mountains. The watershed area is approximately 255 square miles. The Carmel River and its tributaries flow through the upper watershed and through the Carmel Valley. The river, which is about 35 miles long, drains into the Pacific Ocean in Carmel Bay.

Los Padres Reservoir is located on the upper reaches of the Carmel River. Constructed in 1949, the reservoir originally had a capacity of 3,030 acre-feet (987.3 mg). However, heavy storms and high river flows, particularly following the Marble Cone Fire (1977) have carried large volumes of silt and sedimentation from erosion into the Reservoir, diminishing its capacity. In 1999 the

below) Actual surface water diversions have dropped from 29% of total supply in 1995 (4,422 AF) to a low of 0.0% of total supply (0 AF) in water years 2004 and 2005.

2. GROUND WATER SOURCES

a. Carmel Valley Subsurface Water

The Carmel Valley geology features a water-bearing formation of boulders, gravel and alluvium, deposited over the last 10,000 years by the Carmel River. The alluvium ranges in thickness from about 3 feet in the upper part of the valley to about 180 feet near the mouth of the river. This formation is considered highly permeable because of its ability to recharge rapidly after extended dry periods, and has been used by California American Water and its predecessors as an important source of groundwater for many decades.

On July 6, 1995, following hearings that began in 1992, the State Water Resources Control Board determined that the ground water in the Carmel Valley Aquifer would now be considered water flowing in a subterranean stream from the Carmel River and that pumping from this aquifer would no longer be considered extraction from percolating ground water, but rather a surface water appropriation subject to the jurisdiction of the State Water Resources Control Board. The Board determined that, based on historical pumping rates, California American Water had pumped 10,730 AF (3,496 mg) annually without a valid basis of right. Beginning October 1, 1996, California American Water was restricted to pumping no more than 11,285 AF (3,677.2 mg) annually from the *combined* sources of Carmel River surface diversions and Carmel Valley wells, except during emergencies.[1] That amount could be materially reduced by future SWRCB orders if a substitute supply of 10,730 AFY is not obtained in a timely manner.

California American Water maintains two systems of well fields in the Carmel Valley. The Upper Carmel Valley system consists of five active wells while the Company has eight active wells in the Lower Carmel Valley Project area. The wells and their pumping capacity are listed in Table 3. The listed pumping capacities represent current maximum estimated pumping capacities and include reductions from name plate capacities that have resulted from usage over

[1]State Water Resources Control Board, Order WR95-10

TABLE 3
CARMEL VALLEY AQUIFER WELLS

NAME	YEAR DRILLED	DEPTH (ft)	DIAMETER (in)	MAXIMUM PUMPING CAPACITY (gallons/minute)
A. Upper Aquifer				
1. Russell Well 02	1947	84 ft.	20 in.	411 gpm
2. Russell Well 04	1947	45	14	228
3. Robles Well 03	1989	85	16	543
4. Garzas Well 03	1989	46	12	296
5. Garzas Well 04	1989	44	12	233
Subtotal				*1,712*
B. Lower Aquifer				
1. Scarlett Well 08	1989	102	16	1,256
2. Berwick Well 08	1986	4016	16	695
3. Begonia Well 02	1990	127	16	1,481
4. Manor Well 02	1989	140	16	269
5. Schulte Well 02	1996	127	16	1,535
6. Pearce	1981	160	18	1,701
7. Cypress	1981	122	18	1,224
8. San Carlos Well 02	1982	95	16	Out of service
9. Rancho Cañada	1981	148	18	2,500
Subtotal				*10,661*
Total: Upper and Lower Aquifers				*12,373*

[1]Capacities of individual wells vary due to water table levels, system pressures, condition of equipment and other factors and may be reported differently in other documents. The source of this data is: California American Water Company, *Report on Results of Operations and Revenue Requirements*, April 15, 2002, *Annual Report of District Water System Operations*, March 30, 2004 and staff updates, 2005.

TABLE 4
SEASIDE BASIN WELLS

NAME	YEAR DRILLED	DEPTH (ft)	DIAMETER (in)	MAXIMUM PUMPING CAPACITY (gallons/minute)
1. Darwin	1954	228 ft.	14 in.	85
2. LaSalle Well 02	1959	331	18 & 20	250
3. Luzern	1997	290	12	551
4. Military	1963	268	14	82
5. Ord Grove Well 02	1984	481	16	1,254
6. Playa Well 03	1966	228	12	370
7. Plumas Well 04	1998	290	12	204
8. Paralta	1991	820	16	1,730
9. Santa Margarita Test Injection Well (owned by MPWMD)[b]	2001	720	18	1,000 gpm (injection) 2,500 gpm (extraction)
Total				*7,026*

[a] Capacities of individual wells vary due to water table levels, system pressures, condition of equipment and other factors and may be reported differently in other documents. The source of this data is: California American Water, *Report on Results of Operations and Revenue Requirements,* April 15, 2002, *Annual Report of District Water System Operations,* March 30, 2004 and staff updates, 2005.

[b] Test well for the Seaside Basin ASR Project. Operated jointly with MPWMD.

c. Highway 68 Corridor

California American Water operates six small, independent, water systems located along the Highway 68 corridor east of Monterey. The Ryan Ranch Business Park and Hidden Hills areas

TABLE 3
HIGHWAY 68 WELLS

NAME	YEAR DRILLED	DEPTH (ft)	DIAMETER (in)	MAXIMUM PUMPING CAPACITY (gallons/minute)
1. Ryan Ranch Well 02 (Standby)[a]	1988	460 ft.	12 in.	30
2. Ryan Ranch Well 07[a]	1988	500	12	81
3. Ryan Ranch Well 08[a]	1988	480	8	22
4. Ryan Ranch Well 09 (Standby)[a]	1989	470	12	24
5. Ryan Ranch Well) 11[a]	1989	470	12	82
6. Standex (Hidden Hills) (Standby)[a]	1994	850	12	138
7. Bay Ridge (Hidden Hills)[a]	1995	800	12	368
8. Bishop Well 01[a]	-	225[c]	12	
9. Bishop Well 02[a]	-	242[c]	12	
10. Ambler Well 04	-	134[c]	12	264
11. Ambler Well 05	-	148[c]	12	338
12. Ambler Well 06	-	110[c]	12	429
13. Chular Well 03	-	12[c]	12	400
14. Chular Well 04	-	12[c]	12	400
15. Ralph Lane	-	10[c]	12	400
Total				**2,976**

[a]These wells draw from the Laguna Seca sub-basin of the Seaside Groundwater Basin.

[1]Capacities of individual wells vary due to water table levels, system pressures, condition of equipment and other factors and may be reported differently in other documents. The source of this data is: California American Water Company, *Report on Results of Operations and Revenue Requirements*, April 15, 2002 and *Annual Report of District Water System Operations*, March 30, 2004.

[2]Depth to water on 12/31/02. Well depths not reported.

In order to protect the Company with respect to CRLF pending the preparation of a HCP, California American Water negotiated an Agreement with USFWS that covers the Monterey Division's Carmel River operations with respect to the CRLF pending the creation and implementation of a HCP. The initial 1998 agreement required California American Water to:

- implement certain mitigation measures in its operations;
- create and distribute educational flyers regarding listed species;
- implement an educational program on the ESA and California red-legged frog for California American Water employees and contractors; and
- work with other pumpers on the Carmel River to prepare a joint HCP.

The Agreement has been renewed several times and is in effect through December 2005. The Company has fully satisfied all the requirements of the USFWS Agreement except the completion of the joint HCP, because NOAA will not actively participate in the joint HCP process unless the geographic area covered by the HCP includes the operations of both San Clemente and Los Padres Dams. Since the fate of both of those dams was uncertain at the time that NOAA communicated its position, the joint HCP process was placed on hold in the Summer of 2001.

Because diversions at San Clemente and the upper reaches of the Carmel River are of great import to steelhead and consequently of great interest to NOAA, the Company and NOAA executed a bilateral Conservation Agreement in September 2001. It states the goals of NOAA and California American Water and sets forth a two-phase program of system operational changes and construction projects to address NOAA' concerns about the steelhead. The goal is to keep greater stretches of the upper river wetted for longer periods to improve habitat for juvenile steelhead. Phase 1 comprised interim operational constraints and capital projects, while Phase 2 focused on the development of a reliable long-term water supply that is compatible with the constraints of the ESA.

Since 2001, pursuant to the Conservation Agreement with NOAA, the Company:

- funded and implemented capital projects;
- modified well operations;
- modified surface diversions from San Clemente Reservoir; and
- funded various studies to determine the efficacy of proposed changes to the physical system and its operations.

lower Carmel Valley Aquifer as specified in the Conservation Agreement with NOAA. NOAA has asked the Company to provide alternative, additional, mitigation for steelhead. Suggested new mitigation projects include funding management of conditions in the Carmel River Lagoon to better support the steelhead life cycle, funding a genetic study to determine whether steelhead rescued from the Carmel River can be translocated to the Salinas River, improving operations at the Sleepy Hollow Rearing Facility, and others. The Company will continue to meet with NOAA to try to resolve this issue.

F. WATER QUALITY

The quality of water delivered to customers throughout the Monterey District meets or exceeds all State and Federal drinking water requirements. Groundwater pumped by many of the system's wells is of high quality, and requires no treatment other than disinfection, which is accomplished by chlorination. Raw water from as many as 12 wells contains iron and manganese at levels exceeding secondary water quality standards. Treatment for water from eight of these wells is provided at the Begonia Iron Removal Plant. Water from wells serving Bishop, Ambler Park, and Ryan Ranch is also high in iron and manganese, and water from the Ambler Park wells contains arsenic at levels slightly in excess of maximum allowable levels. The Company operates separate facilities for treating and filtering the raw groundwater from these wells prior to distribution. Perchlorate contamination has been identified in one well in the Upper Carmel Valley Aquifer. The concentrations are low but exceed the California Public Health Goal. Accordingly, this well is used only in an emergency situation, and is diluted with water from other wells. Water from wells in the Carmel Valley area, as well as San Clemente surface water (when available) is treated at the Carmel Valley treatment plant. Water from the Seaside Basin wells does not require treatment other than disinfection.

G. SUPPLY MANAGEMENT

In the Monterey service area, California American Water's least costly supply comes from the Los Padres and San Clemente Reservoirs. This water requires conventional surface water treatment and can be delivered to the distribution system by gravity under most demand conditions. However, due to substantial production and diversion limitations, the water take from diversion, impounding and treatment of runoff from the Carmel River watershed has

The 11,285 AF a year limitation on the Carmel River system water supply represents a 20% reduction from the average amount of 14,106 AFY taken from the river system in the non-drought years immediately prior to SWRCB Order 95-10. The reduction is attributable to two primary factors: conservation and increased pumping from the Seaside Basin.

In 1996 and 1997, total production averaged 16,640 AFY. In 2000-2002 production was about 8% less, averaging 15,410 AFY. Considering that demand from Ryan Ranch/Hidden Hills and other areas served by the Highway 68 wells increased by almost 120 AFY in the same period, the reduction in demand from customers served by the Carmel River system was actually over 9%.

Because of the intense regulation of the Monterey District, supply management occupies a great deal of staff time and effort. All wells and diversions are metered and records are meticulously gathered. Daily production reports are prepared for the MPWMD and cumulative withdrawals from the Carmel River System sources are tabulated and monitored to ensure that all feasible actions are taken to maintain production within the Order 95-10 limits. The Monterey District faces severe supply constraints, even in years of normal or above-average precipitation, and all sources of supply must be carefully and continuously monitored and managed.

H. Proposed New Sources of Supply

The July 6, 1995 order by the State Water Resources Control Board (Order WR 95-10) determined that California American Water was pumping 10,730 AFY from the Carmel River system without a valid right of permit. At the same time, the SWRCB granted a permit to the MPWMD to obtain up to 42 cubic feet per second by direct diversion and up to 24,000 AFY per year by storage from November 1 through June 30 through development of a New Los Padres Reservoir. The MPWMD went to the voters in November 1995 to gain approval for a bond issue to finance construction of the new reservoir. The ballot measure was rejected by 57% of the voters, preventing the MPWMD from financing and constructing the project.

In 1996, California American Water requested authorization to use the water rights and other State and Federal permits obtained by MPWMD for this project. The Company also filed an application with the California Public Utilities Commission (CPUC) for authority to build, finance and operate the project, called the Carmel River Dam and Reservoir. A Supplemental EIR was released in December 1998, but was not certified, due to water allocation questions and

TABLE 1
PROPOSED COASTAL WATER PROJECT
FACILITIES SUMMARY

FACILITY	QUANTITY	SIZE AND CHARACTERISTICS
Desalination Plant		
Source Water Pipeline	7,000 LF	54-inch diameter
Return Flow Pipeline	8,000 LF	24-inch diameter
Equalization Basin	1	4.8 mg
Plant Inlet Pump Station	1	13.5 mgd, 200 HP
Pretreatment System	1	22 mgd, submerged media membrane filter
Reverse Osmosis System	1	10 mgd membranes
Post Treatment System	1	Lime and carbon dioxide
Desalinated Water Conveyance System		
Clear Well	2	1.5 mg (each)
Desalinated Water Pump Station	1	7,000 gpm, 1,200 HP
Terminal Reservoir	2	3 mg (each)
Tarpy Flats Pump Station	1	10,200 gpm, 1,200 HP
Aquifer Storage and Recovery (ASR) Systems		
ASR Pipeline	10,000 LF	30-inch diameter
ASR Pump Station	1	4,400 gpm, 150 HP
ASR Wells	3	800-foot depth; 2.1 mgd injection/ 4.3 mgd extraction
Segunda Standby Pump	1	2,300 gpm, 200 HP
Segunda Pipelines	28,000 LF	30-inch and 36-inch diameters

LF = linear feet; mg = million gallons; mgd = mg per day; HP = horsepower; gpm = gallons per minute

The proposed Coastal Water Project desalination plant would take seawater from the cooling system for the Moss Landing Power Plant, and desalinate it with a reverse osmosis process using semi-permeable membranes to separate fresh water from salts in seawater. With this process,

Seaside Basin it is possible that California American Water's ASR component will not be needed, assuming the MPWMD ASR project is available in a suitable and timely fashion.

In order to supply the proposed ASR system with water from Carmel River sources, the existing Segunda pump station would have to be outfitted with a standby pump, as operation of the ASR system would fully utilize its existing capacity. However, an additional pipeline would have to be installed to transport water from the Segunda Reservoir to the Crest Tank and another pipeline would be required to transport water from the Crest Tank to the ASR system.

California American Water has completed the conceptual design and engineering studies for the Coastal Water Project, as well as the *Proponents Environmental Assessment*. However, the approval process for a project of this magnitude is lengthy, and it is not expected that construction could begin before 2007. It is not expected that water from the Coastal Water Project will be available until the end of the term of this UWMP (2006-2010), at the earliest.

b. Recycled Water Projects

Pebble Beach. The existing recycled water project that has been supplying golf courses and other users in the Pebble Beach area with irrigation water from the Carmel Area Wastewater District tertiary treatment plant is being expanded by the MPWMD. Since 1995 the facility has been supplying an average of 664 AFY. With additional storage (in Forest Lake Reservoir) and other changes, it is expected that the project's original goal of supplying at least 800 AFY can be achieved. The area served will be expanded to include some residential properties in the Del Monte Forest that currently use potable water from California American Water for landscape irrigation.

Seaside. The Monterey Regional Pollution Control Agency and the Marina Coast Water District have completed preliminary design, environmental review and obtained a Coastal Development Permit for a reclaimed water project (Regional Water Augmentation Project) to supply reclaimed water and potentially desalinated water to some areas of Seaside, Del Rey Oaks and Monetery that are within the California American Water service area. A pilot project using reclaimed water is in progress at the Bayonet and Blackhorse golf courses in Seaside, and it is expected that about 300 AFY will be available by 2007, offsetting demand for California American Water by an equivalent amount.

City's build out is complete, the amount of desalinated water not being used by the City could be distributed by the Company, offsetting some demands on the Seaside Basin and Carmel River system. The State Water Resources Control Board is currently engaged in a review of this arrangement. It is feasible the plant could be in operation before 2010.

3. *Seaside Basin Groundwater Replenishment.* The Monterey Regional Water Pollution Control Agency is investigating the potential for recharging the Seaside Groundwater Basin with recycled water that it would process and inject. The project has the potential to recharge up to 2,800 AFY, and would be potentially expandable.[2]

4. *Additional Water Rights.* California American Water has submitted a series of applications to the State Water Resources Control Board requesting additional rights to Carmel River underflow. These applications are currently under review and may result in an augmentation of varying degrees to California American Water's supply. Resolution of these requests may occur during the period examined by this plan.

As it is difficult to predict with any surety the timing and ultimate combined result of the above initiatives, California American Water's Monterey District *Urban Water Management Plan* has taken the conservative approach of analyzing future supply and management solutions based only on resources that are currently available or have been adequately advanced through the permitting and approval process. While implementation of the Coastal Water Project is uncertain due to the detailed public involvement process and agency review that water projects of this magnitude are subject to, it remains California American Water's primary proposal to augment water supply on the Monterey Peninsula and is therefore considered in the report. California American Water is not relying on any of the above proposals to meet the requirements of State Order 95-10 and will continue its ambitious conservation efforts with diligence.

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[1] Information summarized from, *MPWMD Comparative Matrix, Part II, Other Projects,* for September 8, 2005 Board Meeting.

[2] Ibid.

FIGURE 3
WATER PRODUCTION

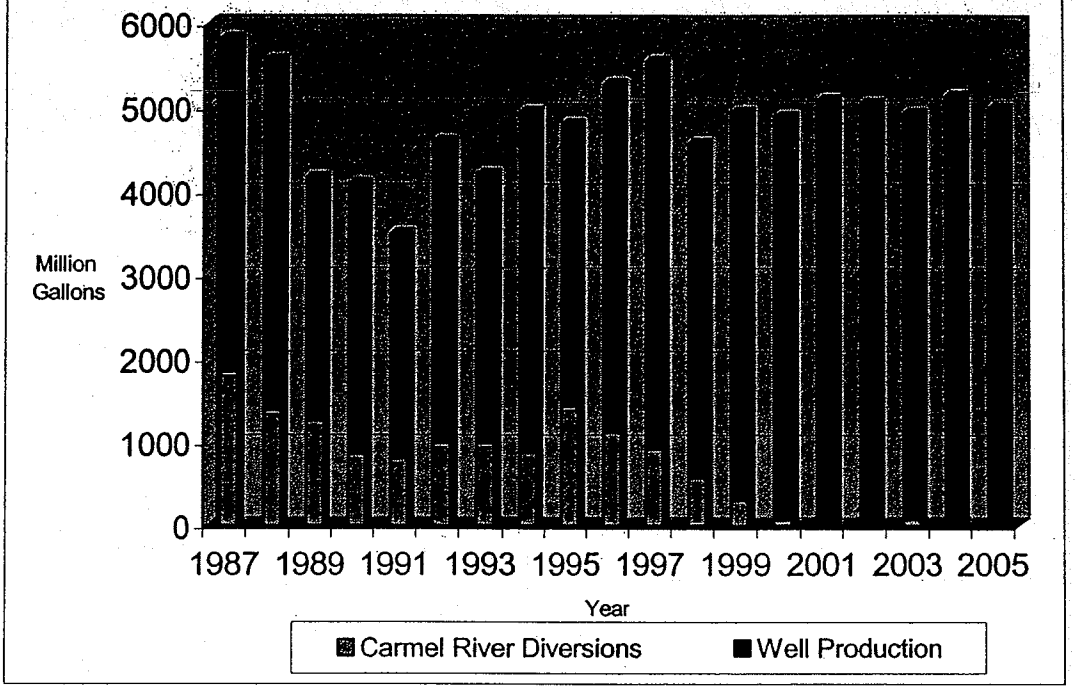
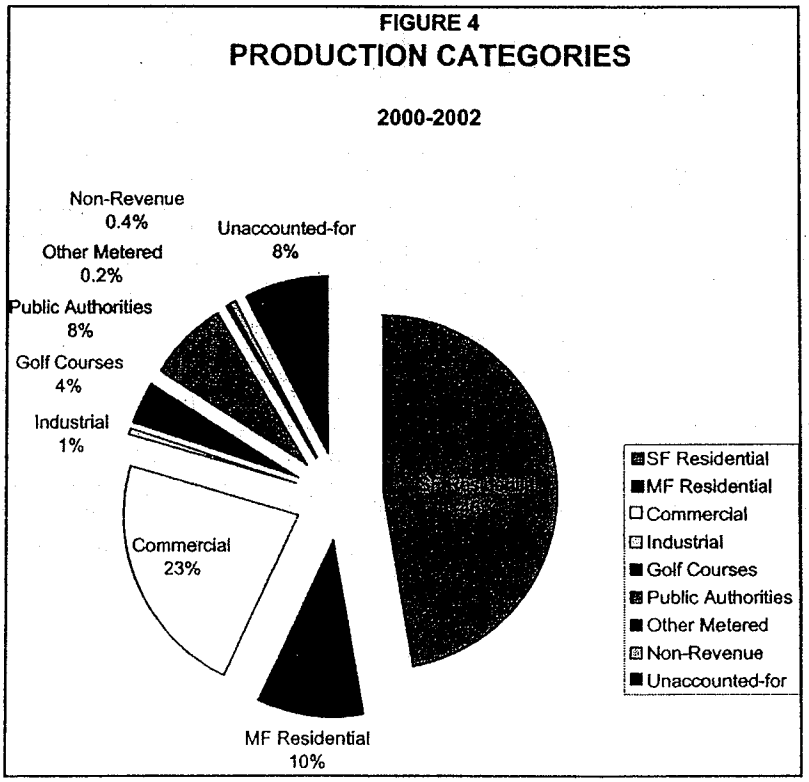


FIGURE 4
PRODUCTION CATEGORIES

2000-2002



B. WATER SALES

Water sales for the past 19 years are summarized in Table 8, in terms of total sales, sales per connection and sales per capita. Figure 5 depicts total sales for each year, while the District's estimated per capita water consumption is shown in Figure 6.

FIGURE 5
WATER SALES

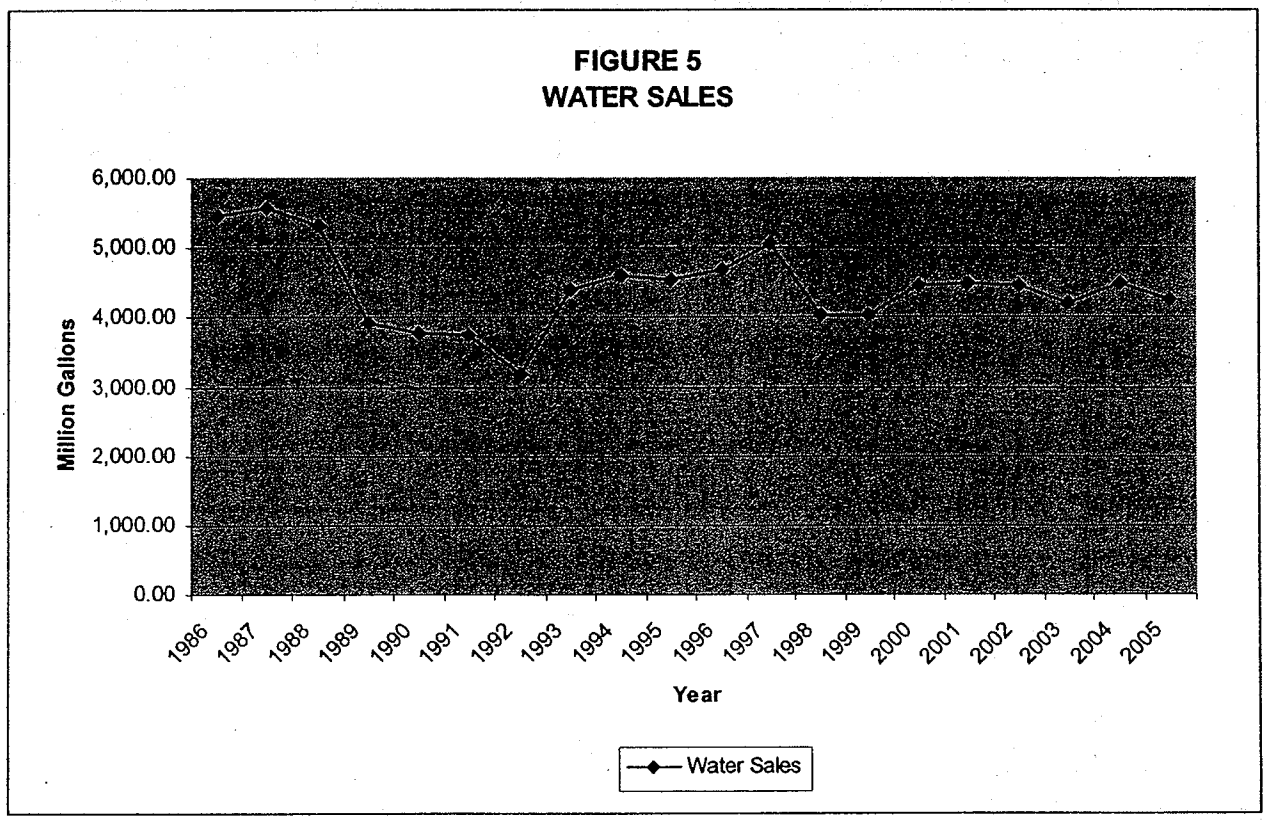
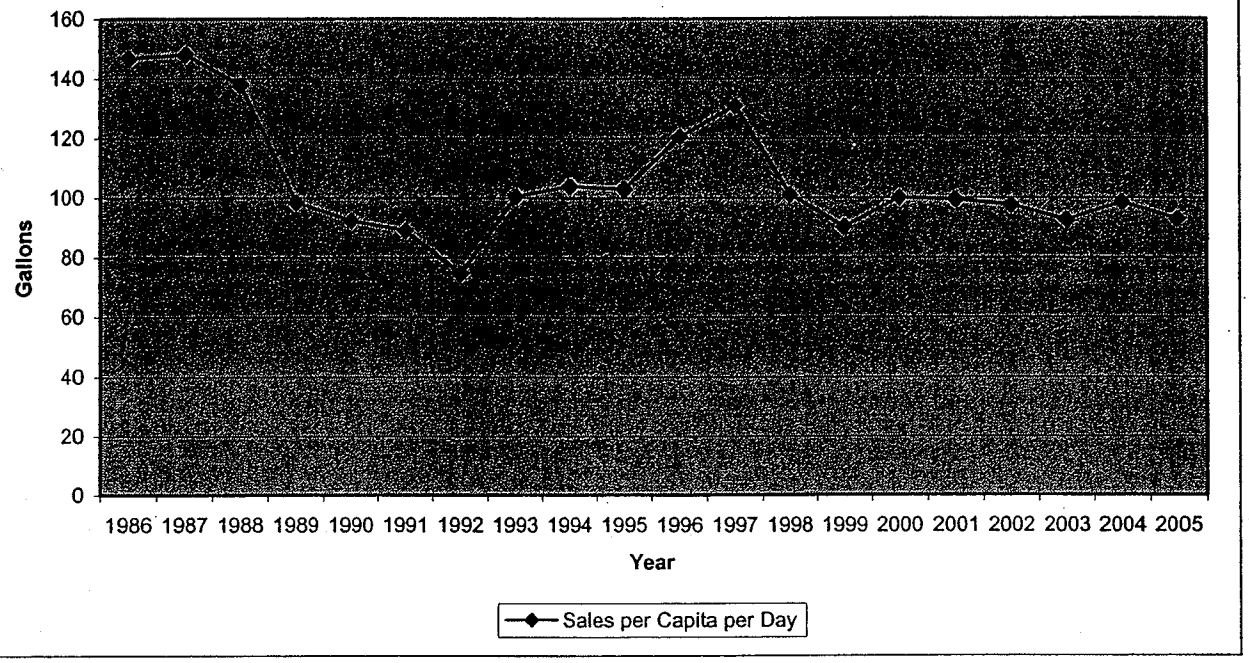


FIGURE 6
SALES PER CAPITA PER DAY



As can be seen in Figures 5 and 6, the Monterey District's customers responded very well to the water rationing programs that were in effect during the very dry years of 1989 - 1992 and the regulatory drought that became serious after 1998, following the imposition of fines by the SWRQCB and reduction of Carmel River System withdrawals to protect endangered species. Compared to 1987, consumption on a per connection basis was 46.7% lower in 1992 and 35.8% lower in 2003. Per capita use in the District is among the lowest in urban areas of the State.[1] In the very dry year of 1992, conservation efforts held water consumption to less than 75 gallons per capita per day. Although 2001 through 2005 were years of average to above average rainfall, the on-going public education programs, conservation incentives, and aggressive conservation rate structure have consistently kept consumption below 100 gallons per person per day.

[11]For purposes of comparison, per capita consumption in the other Cal Am districts in California (Los Angeles, Village, and Coronado) between 1995 and 2000 averaged 177 gpcpd as compared to Monterey's 107 gpcpd. Consumption in the Orange County Water District, with 2.62 million people, was 208 gpcpd.

California American Water's current production. A study conducted in conjunction with the EIR on the proposed New Los Padres Dam and Reservoir project indicated that there would be an aggregate additional water demand of 3,570 AFY by 2020. This was based on estimates from each affected jurisdiction. More recently, in 2001, an analysis by the MPWMD staff projected an additional California American Water demand of 1,181 AFY, based on a review of vacant legal buildable lots of record.

While the numbers vary depending upon the planning assumptions used, it is clear that there is a strong demand for additional water, over and above the new sources of supply that must be developed to replace Carmel River system withdrawals pursuant to WR 95-10.

In 1995, the MPWMD went to the voters to gain approval for the issuance of bonds for the District's New Los Padres Dam. The project was designed to meet current needs and provide additional supplies to accommodate about 325 new connections per year for 25 years. However, the ballot measure failed to gain the simple majority needed to issue construction bonds, and the MPWMD could not build the New Los Padres Dam.

In March 1996, after the voters had failed to approve the bonds for the New Los Padres Dam project, California American Water filed an application with the CPUC to build the proposed dam, with a modification providing that the project would not supply any water for new development. Environmental studies were commissioned and a Draft Supplemental EIR was released in December 1998. However, it was not certified, due to water allocation questions and additional environmental issues raised by the listing of the California red legged frog and Central Coast steelhead trout as threatened species under the Endangered Species Act. In May 2001, the National Marine Fisheries Service indicated that Federal approval of the reservoir would be unlikely, and the Company stopped work on the project. California American Water has since turned its focus on the Coastal Water Project, a combination of the Moss Landing Desalination Plant and the ASR project as a new source of supply. The Coastal Water Project is described above, in Section II, G.

If the proposed Coastal Water Project is approved and constructed, California American Water would have the ability to meet the SWRCB Order 95-10 requirement for replacement of Carmel River water, while also reducing demand on the Seaside Basin. Because of the long lead-time for environmental studies, permits, design, financing and construction, it is not expected that any desalinated water will be available before the end of the term of this Urban Water Management Plan (2010). Moreover, the Coastal Water Project, as currently conceived, does not include an

TABLE 9
PROJECTED DEMAND AND SUPPLY SCENARIOS
AVERAGE AND WET YEARS (AFY)
2005 – 2025

YEAR	2005	2010[a]	2015	2020	2025
Projected Demand (Stage 1 Conservation in effect.)	15,550	-	-	-	-
Projected Demand per General Plans	-	17,900[b]	20,750[c]	23,600[c]	26,450[c]
Projected Supply by Source:					
Carmel River System – Firm Water Rights[d]	3,376	3,376	3,376	3,376	3,376
Carmel River System - Interim Supply[d]	7,909	0	0	0	0
Groundwater:					
Seaside Basin, Coastal sub-basin	3,576[e]	2,218[f]	1,607[f]	1,607[f]	1,607[f]
Seaside Basin, Laguna Seca sub-basin	446[e]	401	325	325	325
ASR Project Water	500	1,300	1,300	1,300	1,300
Desalination:					
Coastal Water Project Moss Landing Plant	0	11,730	11,730	11,730	11,730
Recycled Water:					
Pebble Beach augmentation	N.A.[g]	136	136	136	136
Regional Water Augmentation Project	0	300	1,400	1,400	1,400
Total Water Supply	15,807	19,461	19,874	19,874	19,874
Difference: Surplus/(Shortage)	257	1,561	(876)[h]	(3,726)[h]	(6,576)[h]

[a] The 2010 scenario assumes that the Coastal Water Project is completed and in operation.
[b] Assumes water consumption increases to about 107 gpcpd (15% increase) when the Coastal Water Project becomes operational, ending the "regulatory drought." No significant growth in population or connections is assumed between 2005 and 2010.
[c] Prorates potential General Plan build out between 2010 and 2025. Because of water supply deficits (bottom row) not all planned growth may occur. Also, applicable General Plans may be revised.
[d] Per SWRCB Decision WR 95-10.
[e] California American Water's share of the adjudicated allocations for 2006 through2008.
[f] Assumes California American Water applies 1,000 AFY from the Coastal Water Project to offset a portion of its maximum pumping allocation.
[g] Recycled water demand is supplied by others and not included above. The existing supplies are about 660 AFY.
[h] Not all growth anticipated by current General Plans can be accommodated. Additional supplies would have to be developed, and/or water conservation programs and General Plan revisions would have to be implemented to reduce demand and offset these deficits.

The MPWMD's drought response plan is described in greater detail in Chapter VI, below. Currently, the Monterey District is in a Stage 1 water conservation program, and has been since 1999. Stage 1 will remain in effect until the Coastal Water Project is operational, whether or not precipitation levels are below average.

As can be seen in Table 10, the Company's Monterey customers would be required to make very significant sacrifices in order to meet the water rationing requirements that would be imposed by the MPWMD in the event there is a severe drought in the next 5 years. A Stage 5 water rationing program would require water use of approximately 84 gpdpc; a Stage 6 program would allow about 68 gpdpc; and a Stage 7 program would allow only about 52 gpdpc. Although the Company's Monterey District customers have responded very well to past water shortage emergencies, normal year water use is currently low, and water use efficiency is high. It is likely that the implementation of a Stage 6 or 7, and possibly a Stage 5, rationing program will exhibit the effects of "demand hardening" because there are so few remaining options for easily reducing water use to the extent that would be required.

Once the Coastal Water Project begins operation, the Monterey District will be much less dependent on fluctuations in rainfall, because desalination, groundwater and ASR supplies will be virtually "drought-proof" and the Company will be able to supply water at levels approximating the current total supplies, even in the third year of a multi-year drought.

Tables 11 and 12 depict the potential single-dry year and multiple-dry year scenarios that can be expected once the Coastal Water Project supplies become available. Table 11 reflects the projected water supply and demand scenario between the completion of the Coastal Water Project and 2014. Table 12 reflects the water supply and demand scenario after 2015, when the annual demand reaches maximum supply currently projected (19,874 AFY). Both Tables 11 and 12 show that no reductions in water use are expected in the event of a drought. This is because desalination, ASR and recycled water yields are not reduced by drought, while the withdrawals from the Carmel River system and the Seaside groundwater basin will be held within their sustainable "safe" yields.

TABLE 12
DROUGHT SCENARIOS – 2015 to 2025
SINGLE DRY YEAR AND MULTIPLE DRY YEARS
Occurring between 2015 and 2025

	Coastal Water Project Supply	Single Dry Year	Multiple Dry Years			
			Year 1	Year 2	Year 3	Year 4
MPWMD Rationing Stage	None	None	None	None	None	None
Production[a]	19,874 AF	19,874 AF[b]	19,874 AF[b]	19,874 AF[b]	19,874 AF[b]	19,874 AF[b]
	17.74 mgd	17.74 mgd	17.74 mgd	17.74 mgd	17.74 mgd	17.74 mgd
Monterey District Reduction (%)	0%	0%	0%	0%	0%	0%

[a] Based on prorated General Plan growth, demand would reach a level approximately equal to the available supply of 19,874 AFY by 2015. See Table 9.

[b] It is projected that full production will be available from all sources in drought years.

Monterey Peninsula experienced a severe water shortage in the 1976-77 drought and the Company requested its customers to reduce consumption to 50 gallons per person per day, commencing aggressive water conservation programs by the Company and the creation of a strong water conservation ethic among the District's customers.

Today, the District's on-going water conservation measures include the following:

1. Metering[1]

All District water connections are metered. Metering is recognized as sound urban water management practice as well as a basic water conservation measure (BMP 4). The District has encouraged multiple users on single meters (usually older apartment buildings) to convert to separate meters as a cost reduction and water conservation measure. In addition, separate irrigation meters are installed for large landscape areas. As of 2005, a total of 402 dedicated irrigation meters are present within the Monterey service area.

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 calibrated once per year; customer meters are regularly replaced and recycled. Approximately 77% of customer meters are less than 10 years old.

2. Maintenance of Water Use Records by User Type

The Monterey District maintains detailed records of production from every source and sales by eight categories of users within each of 19 jurisdictions and geographic areas. While the record keeping itself does not save water, the data it provides is fundamental to evaluating the effectiveness of water conservation programs. Because of the need to comply with Order 95-10, the Monterey District monitors water production on a daily basis. The results are reported to the MPWMD and are summarized in the *Monthly California American Water Company Production Report*, which is available to the public on the MPWMD web site.

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[1]Items 1 - 6 in this section were being implemented by Cal Am prior to the 1991 adoption of the *MOU Regarding Water Conservation in California* which created the CUWCC and adopted 14 Best Management

Meter Testing and Calibration. The Company tests the accuracy of larger production meters on a regular basis and recalibrates or replaces any that are determined to be inaccurate. In addition, customer meters are sample tested to identify patterns of inaccuracy and replaced if necessary.

Use of Leak Detection Equipment. California American Water has an official water loss control and leak detection program.[1] In the Monterey District, the Company has purchased and operates special equipment designed for leak detection work. The most recent full survey of the transmission and distribution system was completed in 1998. The leak detection van is also available to respond to emergencies and to assist maintenance crews in leak diagnosis and repair work.

Free Leak Detection Service. Upon request, California American Water personnel will check for water leakage in a customer's own plumbing system. The District does not charge for this service. In 1991-92, when mandatory water rationing was in effect, the demand for free in-home water audits was particularly high. The Company also provides customers with (Toilet) leak detection tablets and kits at no cost to the customer. The leak detection kits and packets (with directions in English and Spanish) are provided in the Audit Conservation packets (for customers), and are available at the front desk in the District office, Company booth at community events and upon request.

Water Pressure Control. California American Water is initiating a program to identify areas where system pressures exceed 80 psi and plans to lower operating pressures in those areas wherever feasible, so that water losses when lines break or leak will be lower.

5. Plumbing Fixtures Retrofit Programs

California American Water has implemented an aggressive program to retrofit residential and commercial facilities with water saving fixtures including showerheads, (kitchen and bathroom) faucet aerators, toilet displacement kits and replacement flappers, as well as ultra low flush toilets (ULF toilets) and high efficiency clothes washers. The Company's efforts include a combination of direct distribution, rebates, audit installations, and support or retrofit

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[1]Donaldson Associates, from Annual Reports of District Water Systems Operations to the CPUC, 1999 - 2004.

Displacements kits and flappers are now only available at the front desk in the District office or upon request.

In 1987, the MPWMD adopted Ordinance 30 (MPWMD Regulation XIV), requiring water conservation retrofits of water using fixtures and appliances upon change of ownership or use, the addition of 25% or more to existing floor area or the addition of a bathroom. The regulation requires 1.6 gallon per flush toilets, showerheads, rain bars, or body sprays designed to emit a maximum of 2.5 gallons per minute of water; and faucet aerators designed to emit a maximum of 2.2 gallons per minute. In addition to the previously listed requirements, new construction is required to install instant-access hot water system and drip irrigation where appropriate. Change of Title Inspections are conducted and a compliance certification must be submitted before change of title. A Water Permit Final Inspection is completed before approving permits and water service changes (or allocation) for any home additions or change in water use. All facilities are tracked for water use changes and followed up 6 months to a year (by MPWMD) after installation or renovation to confirm compliance.

Inspections and Local Regulations. Since 1987 the MPWMD has been conducting over 2,000 inspections a year. In 2003, 1,011 Change of Title and 1,581 Water Permit Final Inspections were completed. In 2004, the total number of inspections and required conservation retrofits increased to 2,632 (1,031 Change of Title and 1,601 Water Permit Final Inspections). It is estimated that in the area served by California American Water, more than 13,000 homes and several hundred businesses have been fully retrofit under Ordinance 30. MPWMD reports that through 2004, more than 15,919 ULF toilets were installed under the requirements of Regulation XIV.[1] By 2002 water sales to single family residential connections in the MPWMD area had decreased by 1,302 AFY, even though the number of connections had increased by 10.7%. The aggregate conservation reduction for this sector averaged 24.3% per connection. The retrofit-on-sale and remodel policies remain in place.

ULFT Rebate Programs. In 1997, MPWMD and California American Water began a program[2] to offer up to $100 rebates for the replacement of inefficient toilets with ULF toilets (rebate not to exceed cost of toilet and installation). Any residential customer not previously required to retrofit is eligible, as are nonresidental customers, for up to 20 toilets per property. The

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[1]Stephanie Pinter, Monterey Peninsula Water Management District, Comments on Draft UWMP, June 26, 2005.

[2]Monterey Peninsula Water Management District, *Ordinance 88*, August 21, 1997

processed has steadily increased as the program becomes better known and publicized throughout California American Water's service area. For example, in 2003 only 3 HECW rebates and 2 dishwasher rebates were processed, however participation increased in 2004 with 42 HECW rebates and 23 dishwasher rebates processed. The MPWMD has budgeted funds for FY 2005-2006 to specifically promote the program with a goal of increasing customer participation.

7. Large Landscape Conservation Programs

In 1998, the MPWMD adopted Ordinance No. 92, the Expanded Water Conservation and Standby Rationing Plan as a program to maintain water use within the California American Water system below the limits set by the State on SWRCB Order No 95-10. The program created consists of seven "stages" which encompass:

Stages 1 – 3 (Respond to the SWRCB limits)

Stage 4 – 7 (Respond to drought conditions or emergency water supply storages)

During Stage 1, California American Water is required to complete audits of all sites with dedicated irrigation meters, an irrigated area greater than three acres, or is a large residential user (uses more than an average of 32 units per month).

8. Public Education

Since the 1977-78 drought, the District has had an on-going public relations campaign to encourage water conservation. The District takes full advantage of its frequent billing period by providing a brief water conservation message on every bill, as well as a comparison of current consumption to same period, prior year consumption. In order to comply with Order 95-10, and keep the community informed, the Company monitors water production on a daily basis, and continually updates its compliance with monthly targets necessary to meet the Order 95-10 limits. The District's customers have taken the limits more seriously since 1997 when the SWRCB levied a $168,000 fine for non-compliance, which was shared by customers served from the Carmel River system.

The Company and the MPWMD communicate monthly and year-to-date compliance data to the public through billings, newspapers, and other media. A Stage 2 voluntary water conservation condition is announced whenever California American Water customers exceed the year-to-date targets and a Stage 3 voluntary water conservation condition is announced if the targets are exceeded for a second time in a water year.

for the Showcase event and provided Chamber members with pre-rinse spray valves and other devices to help their business operations reduce water usage.

California American Water has been an active participant in the Water Awareness Committee of Monterey County since its formation in 1987. This is a non-profit organization of public entities, private companies, and individuals whose focus is to promote knowledge and awareness of water supply issues affecting the County. The Water Awareness Committee's efforts have covered elements under BMP 7 (Public Information) and BMP 8 (School Education) and the committee has provided active leadership in water education since its formation. Programs implemented in the past under Public Information and Education (BMP 7) have included:

- Bus tours of the local water supply facilities for the public — *From the Watershed to the Tap;*
- The provision of water-related information and books to area libraries;
- The sponsorship of displays and speakers on landscape water conservation at local garden shows;
- The sponsorship of public education seminars including *The Effect of Water Rationing on the Average Household, How To Survive the Drought, Hydrogeology for the Lay Person, Groundwater Protection: Preserving Our Unseen Resource;*
- A tour of cisterns with the theme, *Rainwater: How to Catch, Retain and Preserve on the Monterey Peninsula.*

Finally, the Company distributes "Use Water Wisely" messages on sponges, water conservation books, litter bags, balloons, buttons, etc. as opportunities arise, in order to remind customers of the need to conserve. In 2005, California American Water began providing customers with useful devices to help customers measure and identify water saving opportunities including calculators and measuring tapes for measuring landscape area and irrigation system delivery or toilet flush volumes. These helpful devices and other promotional items are available to customers at the District's front office desk, the Company table or booth at community events, during an on-site audit, or upon request.

The Company believes that all of these efforts not only improve the effectiveness of water conservation programs, but they also prove beneficial during emergencies, when a more educated public is more understanding and cooperative in complying with any voluntary or

10. Commercial, Industrial and Institutional (CII) Conservation Efforts

Since 1997, all commercial facilities are required to be retrofitted with ULF Toilets and low flow faucet and shower fixtures (as specified under Ordinance 92). Regulation XIV also required that all existing commercial uses be retrofitted with water-saving plumbing fixtures.[1] This, of course, includes all hotels, motels, and restaurants, which are very significant water users on the Monterey Peninsula. Compliance inspections by MPWMD staff and fines resulted in a very high installation rate. In addition, in 1997, the MPWMD adopted Ordinance No. 89 requiring all visitor-serving commercial users to retrofit to 1.6 gallons per flush toilets. The deadline for compliance with this program was December 31, 2000. As a result of these programs, water sales to the commercial sector decreased by 659 AFY between 1987 and 2002, even though there was an 11.4% increase in the number of connections. Overall sales to the commercial sector dropped 17.2%, while sales per connection dropped 26.4% over this period of time. An average of 135 commercial sites are inspected each year through the Water Permit Final Inspection and/or the Change of Title Inspection. Through these inspections by MPWMD, the required conservation retrofits and fixture upgrades were confirmed and over 90 percent of the regulated CII sites have been retrofitted (MPWMD's Water Resource Management Department, Water Permit Inspector, 12/2005).

In addition to the associated efforts with Regulation XIV, CII customers were eligible to receive the various rebates for water efficient appliances and devices, and the free water savings fixtures and tools for their business facilities. Five commercial sites (not regulated under Regulation XIV or Ordinance 89) received rebates for installing ULF toilets.

Smart Rinse Program

California American Water reserved budget funds in 2005 for a special CII conservation effort involving participation in the statewide Smart Rinse Program. The Smart Rinse Program is administered by a contracted vendor who systematically visited potentially eligible CII sites to replace old pre-rinse spray valves (PRSV) with high pressure, low flow spray valves that use significantly less water. During each installation, a walk-through audit/survey was completed of the business facility to log all water using appliances, fixtures and processes. The information collected can be used by California American Water to better develop future CII programs targeted to opportunities for achieving the greatest water savings.

[1]ULF toilets were not mandatory for this requirement to be met.

problems have been addressed by mixing potable water supplied by California American Water with the reclaimed water to irrigate the golf courses.

In 2004, the MPWMD developed a supplemental financing program to provide advanced treatment components at the tertiary treatment plant and to retrofit Forest Lake Reservoir (which is no longer being used by California American Water) to store up to 420 acre feet of reclaimed water.[1] The improvements are being funded by the Pebble Beach Company, which, in turn, has the right to sell portions of its potable water entitlement to benefited residential properties in the Del Monte Forest area.

In the Seaside area, the Monterey Regional Pollution Control Agency and the Marina Coast Water District are planning a recycled water project that would supply water for golf course irrigation and other uses that currently use potable water from California American Water. The project is called the Regional Water Augmentation Project , and its sponsors have completed preliminary design, environmental review and obtained a Coastal Development Permit for facilities to supply reclaimed water to some areas of Seaside, Del Rey Oaks and Monetery that are within the California American Water service area. A pilot project using reclaimed water is in progress on a Seaside golf course, and it is expected that about 300 AFY will be available by 2007, offsetting demand California American Water by an equivalent amount. Future phases of the Regional Water Augmentation Project are being planned, initially with expansion of up to 1,400AFY, and potentially 2,800 AFY that could offset demand in Seaside, Del Rey Oaks and Monterey that is now met by California American Water. An additional desalination component for the project is also being considered.

C. WATER CONSERVATION PROGRAMS — 2006 - 2010

1. DMM 1: INTERIOR AND EXTERIOR WATER AUDITS (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.

supplied by California American Water's Monterey unit. Stage 1 also implements enforcement of water waste and nonessential water use.

Throughout the term of this Plan, the Company's operations personnel will continue to visit homes and business establishments in response to specific requests or sudden increases in water bills. The focus of these visits is to conduct an interior and exterior water audit to determine if there is a leak or other source of wasted or misused water. In the past, a number of malfunctioning toilets, faucets and irrigation devices have been discovered and repaired in this way.

IMPLEMENTATION: MPWMD will continue to conduct, and California American Water will continue to finance, retrofit on resale inspections. It is expected that the rate of housing turnover and home additions will remain within the range of 1,400 to 2,100 per year and that an additional 3,000 to 4,000 homes will be retro-fitted in the coming five years under Regulation XIV.

California American Water will also continue to conduct residential water audits in response to individual requests or abnormal increases in consumption. However, the Company believes that it more than exceeds the water auditing requirement of BMP 1, and is not proposing any additional auditing efforts so long as the retrofit on resale program remains in effect.

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.

California American Water and the MPWMD have been providing free water service retrofitting devices since 1978 and both organizations continue to provide free devices to customers requesting them. The kits provided by the Company consist of low-flow

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.

The Company has an established *Water Loss Control and Leak Detection Policy*[1] which is followed by the staff when conducting routine annual surveys for pipeline leaks. Leaks found during the leak detection work are prioritized and scheduled for repair as quickly as possible. Larger leaks are given higher priority (but lower than emergency repairs).

The MPWMD Ordinance 92, which was adopted to assist California American Water in maintaining water production limits from the Carmel River system below the limits established in SWQCB Order 95-10, requires California American Water to have unaccounted-for water losses of no more than 7 percent in the most recent 12 month period.[2] California American Water tracks and reports production, sales, non-revenue and unaccounted-for water data to the MPWMD on a monthly basis, thereby completing what is essentially a monthly pre-screening audit. While the District 's running average of unaccounted-for water has not been below the 7% requirement established in Ordinance 92 for most months, volume and percentage of unaccounted-for water has been lower in recent years than it was in the 1996 to 1999 period, prior to Ordinance 92.

The water losses have only exceeded 10% of production once since 1998. While A 10% loss rate is generally acceptable by traditional industry standards, the MPWMD has set a more stringent standard of 7% for California American Water within the areas served by the Carmel River system.

IMPLEMENTATION: Unaccounted-for water use data will continue to be tabulated and monitored on a regular basis and reported to the MPWMD. In addition, the Company will continue to replace older and deteriorating pipelines, and older water meters, and will continue to monitor the distribution system in order to find and repair leaks and other sources of lost water. In the coming year the Company plans to review the water system pressures and reduce

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[1]California American Water Company, *Distribution Policy 7, Water Loss Control and Leak* Detection adopted by the Board of Directors, May 9, 1988.
[2]Monterey Peninsula Water Management District, *Ordinance 92*, Section 3, G., adopted January 28, 1999.

IMPLEMENTATION: This BMP is being fully implemented. All of the District's existing rate structures meet or exceed the basic requirements of this BMP, and the vast majority of the customers are billed under a 4-Tier, per capita, increasing block rate structure that may be the most ambitious water conserving rate structure in the State of California. See BMP 11.

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 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 Monterey District are golf courses. Other major landscape irrigators are the Cities, which irrigate parks and the school districts, which irrigate athletic fields and school playgrounds.

In 1994 the Carmel Area Wastewater District in conjunction with the MPWMD, the Pebble Beach Company, and California American Water began supplying reclaimed wastewater to six golf courses along the western shore of the Peninsula. This program reduced the demand for potable water for outdoor use by 804 AF in 1997 and has averaged annual water saving of 684 AFY. The program is currently being expanded with measures to improve water quality and

financial incentives for the conservation of irrigation water because of the high volumes required.

6. High-Efficiency Clothes Washing Machine Financial Incentive Programs(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.

The MPWMD, in cooperation with California American Water, began offering rebates of $100 to customers within the Carmel River system, Ryan Ranch, Hidden Hills and Bishop service areas for the installation of high efficiency clothes washing machines, dishwashers, instant-access hot water systems and dual-flush toilets on December 1, 2003.[1] This is in addition to the on-going ULF Toilet rebate program. The rebates are available to all residential customers and commercial and publicly owned properties. Commercial accounts are limited to 20 rebates per customer.

IMPLEMENTATION: California American Water exceeds the criteria established in BMP 6. The joint MPWMD/California American Water program provides a larger rebate ($100 instead of $50) and covers a wider range of water conserving appliances.

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

[1]Monterey Peninsula Water Management District, *Ordinance 110*, effective December 1, 2003

- **Television and Radio Advertizing.** In recent years the Company has participated in televison campaigns running from April through September using both AWWA and locally produced film clips. Typically, about 65 spot ads are run each month.

  The radio campaigns have been run on two local stations, who have assisted in preparing the conservation messages on such topics as bathroom conservation, kitchen conservation and outdoor conservation. The radio campaign also operates from April through September when approximately 360 spots are run each month.

- **Local Newspaper Announcements.** Paid advertisements with water conservation messages, promoting free water audits, supplying financial reports to customers, and providing information about hydrant flushing programs have all been purchased in local newspapers from time to time.

  Mandatory water conservation programs implemented by the MPWMD have been announced with ads in the *Monterey Herald.* In addition California American Water, MPWMD and the Water Awareness Committee have purchased advertisements in conjunction with Water Awareness Month. These ads have been used to initiate the poster and fire hydrant decorating contests sponsored by the Company.

  Furthermore, the *Monterey Herald* has had regular coverage of the MPWMD's actions related to the development of expanded sources of water for the Peninsula and the mandatory water rationing programs that have been implemented in the recent past.

- **Service Club Presentations.** California American Water operates a speaker's bureau and can provide guest speakers for local service clubs and business associations (Chamber of Commerce, Rotary, Kiwanis, etc.), homeowner and neighborhood associations and other community groups on water supply and water conservation related topics.

IMPLEMENTATION: The District's programs of informational billing inserts, media ads, and community presentations will be continued on a routine basis, directly by the Company and in cooperation with the MPWMD and the Water Awareness Committee. The level of public contact through the media will be increased in the event that higher levels of water rationing are enacted during the term of this Plan.

(b) Implement a program to accelerate replacement of high-water using toilets with ULF Toilets 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.

The largest commercial and industrial customers in the Monterey District are hotels and restaurants as a group and the individual championship private golf courses located on the western side of the Peninsula. These golf courses are primarily irrigated with reclaimed water, resulting in a net conservation savings averaging 664 AFY (over 4%) of California American Water's potable water supply. The program is currently being expanded so less potable water will have to be blended with recycled water and to increase the supply flexibility through water storage.

Not all golf courses within the District's service area are served by the reclaimed water system. In recent years, sales to golf courses (one in Pacific Grove and the others in unincorporated Monterey County areas) have averaged about 550 AFY. These facilities have participated in the large landscape conservation programs, (BMP 5) and water budgets have been developed for them.

The hotels and restaurants were retrofitted with low-flow plumbing devices beginning in 1987 with the adoption of MPWMD's Regulation XIV. All visitor serving commercial establishments were required to have fully converted to ULF toilets by December 31, 2000. Primarily as a result of this program, commercial water sales were 588 AF lower in 2002 than they were in 1987. This is the equivalent of a 33.4% conservation reduction on a per connection basis.

Institutional (Public Authority) accounts have also been encouraged to retrofit their building with ULF toilets and participate in the large landscape conservation programs wherever they are responsible for irrigated landscape areas over 3 acres in size. The average water consumption for the institutional accounts was 2.2 AF in 2002, almost an 11% drop from the 2.5 AF consumed in 1998.

The Company has very few industrial connections (less than 10) in the Monterey District, and their aggregate consumption is very minor, less than 0.5% of the District's overall sales. The

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.

In 1997, the District received permission from the CPUC[1] to implement an experimental rate structure designed to promote water conservation. This new structure was a three block residential quantity rate with increasing rates per block. A low-income tariff rate was also established, with no monthly service charge for qualified customers. Customers in multi-family residential buildings were charged a reduced quantity rate equal to the low block residential rate, plus the full monthly service charge. This experimental rate structure was designed to reduce the consumption of those residential customers who use larger quantities of water and to provide some relief for large multifamily, single metered, residential complexes that previously did not have rate parity with individually metered multi-family residential buildings.

In 1998, data on the Company's 90 largest residential accounts was compiled. This research indicated that these customers purchased 24.78 AF of water, a 41% reduction from the previous year, before the District instituted the experimental rate system.

Recognizing that there are limits to price elasticity, and that usage fees can be a powerful conservation tool, the Company proposed, and the CPUC adopted, effective January 1, 2002, a four-tier, per-capita based increasing block rate structure applicable to all residential accounts within the areas served by the Carmel River system. The rate differentials in the 4-block structure are shown below, in Table 13.

The numbers of hcf units per month that are included in each tier are based on the number of ECU's (Equivalent Consumption Units) that each customer can qualify to consume, based on their individual circumstances and the time of year (where landscape irrigation is required). The ECU determination takes into consideration the following factors: a) the number of people in the household; b) the size of the lot on which the home is constructed; c) an allotment for large animals; and d) an adjustment for winter and summer months.

[1]California Public Utilities Commission, Decision D96-12-005.

TABLE 14 EQUIVALENT CONSUMPTION UNIT (ECU) TABLE	
NUMBER OF PEOPLE	
1 Person	3
2 People	5
3 People	7
4 People	9
5 People	10
6 People	12
7 People	13
8 People	14
9 People	15
10 People	16
11 People	17
12 People	18
SIZE OF LOT	
No Outside Space	0
Up to 1/4 acre	1
Over 1/4, up to ½ acre	2
Over ½ , up to 1 acre	3
Over 1 acre, up to 2 acres	4
Over 2 acres, up to 3	6
Over 3 acres, up to 4	8
Greater than 4 acres	10
ALLOTMENT FOR LARGE ANIMALS	
1 or 2 Large Animals	1
3 or 5 Large Animals	2
6 or 10 Large Animals	3
11 or 20 Large Animals	4
Over 20 Large Animals	5

supply side; no additional pricing incentives are believed to be necessary on the wastewater side.

IMPLEMENTATION: Cal -Am will continue to maintain a conservation pricing rate structure. It is expected that the four-tier, per-capita based increasing block rate structure for most residential accounts served by the District will remain in effect through the term of this UWMP. This rate structure conforms to Stage 1 Water Conservation Requirements (MPWMD, Ordinance 92), which went into effect in 1999, and will remain in effect until water supplies to the Monterey Peninsula can be increased by the amounts required under by Order 95-10, (10,730 AFY). While the Coastal Water Project is in planning, it is not expected that new water will flow from it before 2010.

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.

The Monterey District has three AWWA certified water auditors, whose duties include a variety of water conservation related responsibilities, occupying as much as 30 percent of each person's job. They respond to customer-initiated requests and assist with the implementation of Company sponsored conservation initiatives. The Company provides staff liaison to the Water Awareness Committee, which is responsible for much of the leadership for water conservation work throughout Monterey County.

In addition, the MPWMD also has a very active water conservation staff. Much of this office's work is directed at California American Water customers, as the Company is the largest water purveyor serving communities within the MPWMD's jurisdiction.

draining and refilling of swimming pools or spas except for structural or public health reasons. Non-essential water use violations are subject to the same penalties as water wasting.

IMPLEMENTATION: The MPWMD regulations meet or exceed the requirements of BMP 13, except that they do not address water softeners and single-pass cooling systems. California American Water will recommend that the MPWMD ordinance and implementing rules be amended to prohibit self-regenerating water softeners and single-pass cooling systems. The Company will continue to cooperate with the MPWMD in the enforcement of the District's existing water waste regulations.

14. Residential ULF Toilet Replacement Programs (BMP 14)

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 .

As described in section B, 5, (above) the Monterey Peninsula Water Management District has operated plumbing retrofit programs for the residential and commercial sectors beginning with a demonstration program in 1985. The residential retrofit on resale program implemented by Ordinance 30 began in 1987. Over 20,000 homes have been involved. Between 1996 and 2004, 15,919 ULF toilets were retrofitted under this program.

The $100 rebate program was started in 1997, and supplements the mandatory change-of-ownership retrofit program. A total of 7,622 retrofits had been documented under this program through 2003. During the term of this Plan, the Company will continue to cooperate with the MPWMD in implementing both of these residential ULF toilet replacement programs.

IMPLEMENTATION: The Monterey District, pursuant to MPWMD Ordinances, has achieved a high level of ULF toiltet installation and will continue to support these retofit on resale and rebate programs.

The Company has operated a formal meter testing, maintenance and replacement program since 1981.[1] This program predated the *Urban Water Management Plan* and is considered an integral part of the Company's water management strategy. It requires random testing of new meters from bulk shipments, and testing due to length of service. All 1-inch or smaller meters are to be replaced after 15 years in service. Larger meters are to be tested as specified intervals ranging from 1 to 4 years. Currently, approximately 33,000 of the Monterey District's total of approximately 40,000 meters are less than 10 years old, and the majority of the remaining are larger than 1-inch and are regularly tested and calibrated. The Company's program for regular meter replacement will also continue throughout the term of this Plan. It is expected that there will never be more than 20 percent of the District's meters that are greater than 10 years old.

IMPLEMENTATION: This measure has been implemented on an on-going basis and will be continued.

18. WASTEWATER RECLAMATION

The Carmel Area Wastewater District and the Pebble Beach Community Service District (CAWD/PBCSD), in cooperation with MPWMD, the Pebble Beach Company and California American Water has been operating a wastewater reclamation program since 1994. (See V, B, 7, above). The reclaimed wastewater is being distributed to golf courses and large turf users on the Peninsula for irrigation use. Currently, the facilities have a capacity of about 800 AFY In 1996, only 472 AF of reclaimed water were used after the grass showed signs of stress due to high sodium levels in the wastewater. Supplemental treatment with gypsum and blending with potable water was successful in reducing the problem. Reclaimed water purchases peaked in 1998 at over 804 AF, although it has been necessary to supplement the reclaimed water with as much as 200 AF of potable water a year.

In 2004, the MPWMD developed a supplemental financing program to provide advanced treatment components at the tertiary treatment plant and to retrofit Forest Lake Reservoir (which is no longer being used by the Company) to store up to 420 acre feet of reclaimed water.[2]

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[1]California American Water Company, *Services and Meters, NO. 2*, approved by Board of Directors, July 1, 1981.

[2]MPWMD, Ordinance 109, May 27, 2004.

D. IMPLEMENTATION PROGRAM AND SCHEDULE

Table 16 summarizes California American Water's implementation program for the Urban *Water Management Plan*. The implementation program is based on a five-year time horizon, beginning with 2005. The schedule is intended to provide general guidance to the Company for the enactment of the water conservation programs described in this report. 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.

VI. WATER SHORTAGE CONTINGENCY PLAN

A. INTRODUCTION

AB11 (1991) amended the Water Code provisions addressing *Urban Water Management Plans* to expand their scope to include the preparation of a *Water Shortage Contingency Plan* as one component of the updated *Urban Water Management Plans.* The District's first *Water Shortage Contingency Plan* was completed in January 1992, updated in 1995, and is again updated in this chapter.

B. PAST, CURRENT AND PROJECTED WATER USE

The Water District's total annual production requirement, by user category, between 1987 and 2005 are shown in Table 3 in Chapter III, above, and are summarized in Table 17, on this page. The years in which water rationing was in effect are noted, along with the years falling under the Order 95-10 production limits.

TABLE 17
WATER PRODUCTION
1987 - 2005

Year	Amount (AF)
1987	[illegible]
1988	17,095
1989	12,515
1990	12,533
1991	10,766
1992	14,138
1993	12,952
1994	15,233
1995	14,775
1996	16,232
1997	17,048
1998	14,070
1999	15,221
2000	15,039
2001	15,655
2002	15,526
2003	15,164
2004	15,795
2005	15,349

Years with full or partial water rationing

Years with Carmel River system

Between 1987 and 2003 the population served by the Monterey District increased by about 16% to 124,300 people and the District had an average of 376 new connections per year. Portions of these were new meters to serve existing customers in multi-family dwellings.[1] The existing water supplies are fully allocated and increases in supply are not likely in the short term. The District is in a water-restricted area and expects minimal growth in the coming five years.

The previous UWMP reported that planning projections call for 14,950 additional residential units and 34,721 more jobs (over a

[1]An additional 589 separate irrigation meters have been installed, but are not counted here because they are billed to existing customers.

In the 1987-91 period, which was the driest consecutive five year period on record, the MPWMD imposed a maximum 20% reduction in per capita use, which was achieved, and in fact exceeded — water production in 1991 was about 9.6 mgd, 40% lower than in 1987, but well above the post-Order 95-10 theoretical minimum supply of 7,898 AFY, equivalent to 7.0 mgd.

D. STAGES OF ACTION IN THE EVENT OF WATER SUPPLY SHORTAGES

The Monterey District has its water resources regulated by the Monterey Peninsula Water Management District, which was empowered by the California Legislature in 1978 following the 1976-77 drought.

The MPWMD has the power to pass ordinances to create staged responses to all water shortages on the Monterey Peninsula and surrounding areas. Ordinances requiring voluntary and mandatory water conservation in response to water shortages have been adopted when the District has faced periods of below normal precipitation. On January 28, 1999 the MPWMD adopted Ordinance 92, to amend the existing Water Supply Emergency Ordinance (Ordinance 54) and modify District Rules to create an *Expanded Water Conservation and Standby Water Rationing Plan.* It was designed to address both legal and physical water emergency situations. California American Water is bound by the provisions of MPWMD Ordinance 92, as amended by Ordinance 119 in March 2005. Although the Monterey District has flexibility to act within the parameters set by Ordinance 92, as amended, it largely defines the Company's responses to water supply emergencies. The Ordinance establishes seven stages, the first three respond to legal and regulatory supply limitations, while Stages 4 through 7 are designed to respond to increasingly severe water shortages caused by drought or sudden emergencies. The respective stages of action that would be implemented include:

Stage 1: Stage 1 water conservation goals reflect the California American Water regulatory production limits of 11,285 AFY from the Carmel River system (imposed by the SWRCD) and the 4,000 AFY production limit from the Seaside groundwater production system. Stage 1 requires all California American Water customers to comply with the MPWMD water waste and non-essential water use prohibitions, and urges all customers to voluntarily reduce water use to the extent possible. It requires odd/even outdoor watering day. Stage 1 water conservation was put in effect on March 1, 1999 and is unlikely to be repealed until additional water supplies become available, which may not occur during the term of this UWMP.

Stage 4: This would be a water rationing program designed to be implemented in drought or water supply emergencies. It would be triggered by decision of the MPWMD Board if the total usable storage in the system managed by the MPWMD is less than 27,807 AF but more than 21,802 AF on May 1 of any year. The Stage 4 water rationing plan would have the same features as the Stage 3 plan, with the addition of all water users within the affected water system. It is designed to achieve a 15% reduction in water use from the system production limit.

Stage 5: The Stage 5 water rationing program would be implemented in drought or water supply emergencies in which the total usable storage in the system managed by the MPWMD is less than 21,802 AF but more than 15,615 AF on May 1 of any year. It would be triggered by action of the MPWMD Board, and would have a goal of 20% reduction in water consumption.

If Stage 5 is activated, California American Water will be required to provide written notice of mandatory water rationing to every water user and to include monthly reminders in every water bill, along with information on the quantity of the water ration consumed in the past month. Water rations are to be developed for each user category, based on available production divided by the percentage of historical use. Water savings achieved that are greater than the monthly ration will be "banked" for use by the individual customer later in the year. The Stage 5 water rationing program will also include a moratorium on any new water permits involving an intensification of use. In addition, the Stage 1 through Stage 4 restrictions will remain in effect.

Stage 6: The Stage 6 water rationing program would be implemented when the total usable storage in the system managed by the MPWMD is less than 15,615 AF but more than 9,610 AF on May 1 of any year. It would be triggered by action of the MPWMD Board, and would have a goal of 35% reduction in water consumption. Like Stage 5, Stage 6 water use restrictions would be achieved with water use cutbacks by user category and by per-capita water rations as well as by a moratorium on the issuance of water permits that intensify use. In addition, Stage 6 rationing will include prohibitions on all ornamental water uses and on the use of water for dust control. Restrictions implemented in Stages 1 - 5 would be continued in Stage 6.

G. PENALTIES OR CHARGES FOR EXCESS USE

The existing rate structure for residential customers is a four-block conservation pricing structure that effectively includes a charge for excess use, as the cost per unit of residential water increases as the amount consumed increases. Water waste fees are also incorporated into the MPWMD water rationing plans (Stages 4 through 7) and would be imposed by MPWMD as an enforcement mechanism.

H. IMPACTS ON REVENUES AND EXPENDITURES

California American Water must follow the rules and regulations of the California CPUC in its billing practices and rates to customers. Revenues that are either over-collected or under-collected due to the effects of modifications in the current rate design from standard commission practices are tracked in special accounts. The Commission determine how the over or under collected revenues are either returned or received to or from customers. Currently, some of the excess use charges that have been set aside are used to fund water conservation programs sponsored by the Company and the MPWMD.

I. DRAFT ORDINANCE

As noted, California American Water does not have the authority to adopt resolutions or ordinances. California American Water must comply with ordinances adopted by the MPWMD. Ordinance 92 (adopted March 1, 1999), as amended by Ordinance 119, (adopted March 21, 2005) is the operating Water Shortage Contingency Plan for the MPWMD and for the Monterey District. Ordinances 92 and 119 are reproduced in Appendix A.

J. MECHANISM FOR DETERMINING ACTUAL REDUCTIONS

Since all California American Water 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. Water production and sales data is continually being collected by the Company and is submitted to MPWMD and other regulatory authorities, including the CPUC, as required.

APPENDIX A

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT
ORDINANCES 92 AND 119

Effective March 1, 1999
Amended March 21, 2005

FINAL
ORDINANCE NO. 92

AN ORDINANCE OF THE BOARD OF DIRECTORS OF THE MONTEREY PENINSULA WATER MANAGEMENT DISTRICT ESTABLISHING AN EXPANDED WATER CONSERVATION AND STANDBY WATER RATIONING PLAN

FINDINGS

1. The Water Management District is charged under the Monterey Peninsula Water Management District Law with the integrated management of the ground and surface water resources in the Monterey Peninsula area.

2. The Water Management District has general and specific power to cause and implement water conservation activities as set forth in Sections 325 and 328 of the Monterey Peninsula Water Management District Law.

3. This Ordinance is enacted to respond to present and threatened water emergencies, as provided by Section 332 of the District Law. Water emergencies addressed by this ordinance are created by both legal and physical circumstances which constrain the amount of water that is available to serve water users in the Monterey Peninsula area.

4. The District Board declared a water supply emergency in accord with Section 332 of the District Law upon implementation of Supply Option V of the Water Allocation Program Environmental Impact Report in 1990. This water supply emergency remains in effect.

5. The Water Supply Emergency was substantiated in April 1991 upon adoption of Ordinance No. 54, Defining Phase I Water Use Rules. Ordinance No. 54 remains in effect except as amended by this ordinance.

6. State Water Resources Control Board (SWRCB) Order No. WR 95-10, issued in July 1995, ruled that California-American Water Company (Cal-Am) did not have a legal right to take approximately 69 percent of the water historically supplied to Cal-Am users. The SWRCB has set specific goals to reduce Cal-Am's water diversions from the Carmel River Basin.

7. Under SWRCB Order No. WR 95-10, Cal-Am has been ordered to reduce its historical diversion from the Carmel River Basin by 20 percent in Water Year 1997 and each subsequent water year.

8. This ordinance shall be one part of the Monterey Peninsula Water Management District's Urban Water Management Plan.

Section 3: General Provisions

A. All water users within the Monterey Peninsula Water Management District shall be subject to the District's water waste and non-essential water use prohibitions.

B. Prohibitions against water waste and non-essential water use shall be enforced by the District and its designated agents in accordance with Rule 171 (Water Waste Fees).

C. Stage 1 Water Conservation shall be implemented upon the effective date of this regulation.

D. Stage 1 Water Conservation parallels Cal-Am's Phase IV Mandatory Water Conservation program that was designed to meet the Carmel Valley water production limits set by the SWRCB and approved by the Public Utilities Commission. Stages 1 through 3 Water Conservation are intended to achieve the Carmel Valley water production limits set by the State Board. Stage 4 Water Rationing through Stage 7 Water Rationing are intended to respond to limitations in supply caused by inadequate system inflow and storage.

E. Stage 1 Water Conservation through Stage 3 Water Conservation shall apply to water users of the Cal-Am water distribution system where that system derives its source of supply from the Monterey Peninsula Water Resources System (MPWRS) for as long as Cal-Am is subject to water production goals and limitations enforced by the SWRCB.

F. Stage 4 Water Rationing through Stage 7 Water Rationing may apply to all water distribution system users and water users within the Monterey Peninsula Water Resources System as a response to limited water supply. These stages shall also serve as responses to emergency situations where immediate reductions in water use are necessary to ensure public health, safety or welfare. This regulation authorizes the Board of Directors to, from time to time, determine by Resolution that any water distribution system or set of water users within the Monterey Peninsula Water Management District shall be subject to Stages 4 Water Rationing through Stage 7 Water Rationing as provided in this ordinance.

G. As to water derived from the MPWRS, Cal-Am shall maintain unaccounted for water use in its MPWRS distribution system at or below seven (7) percent. Average losses of more than seven (7) percent during the most recent twelve month period shall be considered water waste. This limitation shall not affect any Cal-Am system east of, and including, the Ryan Ranch subunit.

H. Cal-Am shall amend its Urban Water Management Plan to conform to the policies and procedures described in this ordinance. A copy of the plan and amendment shall be filed with the District within 180 days of the effective date of this ordinance. The plan shall comply with the California Water Code, Division 6, Part 2.6.

I. Cal-Am shall prepare an analysis of the impacts of each of the actions and conditions described in this ordinance, inclusive, on the revenues and expenditures of Cal-Am, and proposed measures to overcome those impacts, such as the development of reserves and rate adjustments. A copy of the analysis shall be provided to the District.

distribution systems and water users outside the MPWRS shall be subject to this regulation only upon Resolution by the Board of Directors in response to physical or legal restrictions which effect sources of supply outside the MPWRS.

C. A list of water distribution systems within and without the MPWRS shall be maintained by the District.

Section 5: Definitions

A. Unless the context specifically indicates otherwise, the following words or phrases shall be given the definitions set forth below.

1. Addition - "Addition" shall mean an expansion of usable square-footage in a building, or in a non-residential use the use of new area which causes an intensification of use as defined in Rule 11 (Definitions).

2. Base Use - "Base Use" shall mean a reasonable amount of water anticipated to be used by a Cal-Am water user during Stages 1 through 3 Water Conservation. Base Use correlates to the base block rate established by Cal-Am for the individual customer.

3. Best Management Practices (BMP) - "Best Management Practices" or "BMP" shall mean industry-specific water conservation practices, retrofits, equipment and facilities recognized by the District and approved by the Board of Directors.

4. Cal-Am Unaccounted For Water Uses - "Cal-Am Unaccounted For Water Uses" shall mean the difference between what is recorded at the production meters and the consumption recorded through system meters or reported as estimates of reasonable uses. Unaccounted For Water Uses shall include system leakage.

   Unaccounted for water is made up of the following: Unknown leakage, stolen water, unreported fire department usage, unreported street sweeping (and other municipal uses), unrecorded construction water, customer meters registering slow.

5. CAWD/PBCSD Wastewater Reclamation Project - "CAWD/PBCSD Wastewater Reclamation Project" shall mean the wastewater reclamation project undertaken by the Carmel Area Wastewater District and the Pebble Beach Community Services District that supplies reclaimed water to the golf courses and certain open space areas within Pebble Beach.

6. Commercial Use - "Commercial Use" shall mean water used in connection with commercial premises devoted primarily to, but not limited to offices, stores, markets, hotels, motels, and restaurants.

18. Landscape Audit - "Landscape Audit" shall mean an action taken by a District-approved landscape irrigation auditor to determine reasonable outdoor water use.

19. Landscape Irrigation Auditor - "Landscape Irrigation Auditor" shall mean a person approved by the Monterey Peninsula Water Management District to perform landscape water audits and assign water budgets.

20. Landscape Water Budget - "Landscape Water Budget" shall mean a maximum annual water allowance in gallons per year, determined upon completion of a landscape water audit by a District-approved Landscape Irrigation Auditor. The Landscape Water Budget shall take into consideration the types of plants, soil condition, evapotranspiration rates and irrigation system.

21. Large Livestock - "Large Livestock" shall mean animals such as cattle, horses, llamas, pack animals and other similar animals.

22. Large Residential Water User - "Large Residential Water User" shall mean any residential user consuming an average of 32 units or more each month (23,936 gallons) or at least 384 units (287,232 gallons) in the year prior to establishment of a landscape water budget.

23. Mixed Use Water User - "Mixed Use Water User" shall mean users of water for domestic or other uses from any water distribution system or private well where one water meter or connection or well provides both residential and nonresidential use.

24. Mulch - "Mulch" shall mean any material such as leaves, bark, straw or other materials left loose and applied to the soil to reduce evaporation. Organic mulches include pine bark, compost, and wood chips. Inorganic mulches include rock, cobble, gravel, and synthetic water-holding soil additives.

25. Multi-Family Dwelling - "Multi-Family Dwelling" shall mean a building designed for occupancy by two or more families living independently of each other.

26. Multi-Family Residential Site - "Multi-Family Residential Site" shall mean a property with one or more multi-family dwellings, or a property containing more than one single-family dwelling.

27. Non-Revenue Metered and Unmetered Use - "Non-Revenue Metered and Unmetered Use" shall include water used for water distribution system-owned and leased facilities, flushing when necessary for health or safety purposes, use for production including filter back-washing at two filter plants, rights-of-way, river bank irrigation, and Cal-Am well property irrigation. This definition shall also apply to estimated beneficial water use by fire departments and other municipal uses not prohibited under the definition of Water Waste or Non-Essential Water Use.

39. Single-Family Residential Site - "Single-Family Residential Site" shall mean a property with one single-family dwelling. A separate guest house or auxiliary unit without a kitchen shall be included in this definition

40. Short Term Residential Housing - "Short Term Residential Housing" shall mean one or more residential dwelling units on a property that are occupied by visitors, are operated as a business and for which a fee is charged to occupy the premises.

41. Small Water Distribution System - "Small Water Distribution System" shall mean a water distribution system with less than 50 connections.

42. Stage 1 Water Conservation - "Stage 1 Water Conservation" shall mean the first stage in the District's Expanded Water Conservation and Standby Rationing Plan that takes action to maintain Cal-Am water use in the MPWRS below regulatory constraints by increasing conservation activities and preparing for further stages of conservation and rationing.

43. Stage 2 Water Conservation - "Stage 2 Water Conservation" shall mean the second stage in the District's Expanded Water Conservation and Standby Rationing Plan that takes action to maintain Cal-Am water use in the MPWRS below regulatory constraints by requiring landscape water budgets for large irrigators of over three acres, large residential users and users with dedicated landscape water meters.

44. Stage 3 Water Conservation - "Stage 3 Water Conservation" shall mean the third stage in the District's Expanded Water Conservation and Standby Rationing Plan that takes action to maintain Cal-Am water use in the MPWRS below regulatory constraints and to respond to potential drought or emergencies by imposing higher water charges for excessive water use.

45. Stage 4 Water Rationing - "Stage 4 Water Rationing" is defined as the fourth stage in the District's Expanded Water Conservation and Standby Rationing Plan that responds to a drought situation or emergency water supply shortage with a 15 percent reduction goal from system production limits for non-Cal-Am water users. Reductions are achieved by voluntary water use cutbacks in addition to excessive use rates imposed during Stage 3 Water Conservation.

46. Stage 5 Water Rationing - "Stage 5 Water Rationing" shall mean the fifth stage in the District's Expanded Water Conservation and Standby Rationing Plan that responds to a drought situation with a 20 percent mandatory reduction achieved by requiring water use cutbacks by user category and by per-capita water rations and by enacting a moratorium on water permits that intensify water use.

47. Stage 6 Water Rationing - "Stage 6 Water Rationing" shall mean the sixth stage in the District's Expanded Water Conservation and Standby Rationing Plan that responds to a severe drought situation with a 35 percent mandatory reduction achieved by requiring water

59. Water User - "Water User" shall mean users of water for domestic or other uses from any water distribution system or private well.

60. Xeriscape - "Xeriscape" shall mean the practice of conserving water and energy through creative landscaping using good landscape design, limiting lawn areas, irrigating efficiently, improving soils, using mulches, choosing low water use plants and employing other good landscape maintenance practices.

B. The words and phrases defined above in paragraph A of this Section shall further be set forth as defined terms within Rule 11 (Definitions) of the District's Rules and Regulations.

Section 6: Amendment to Rule 11 (Definitions)

The following modifications (in bold and strikeout) shall be made to Rule 11 (Definitions) of the District Rules and Regulations.

MONTEREY PENINSULA WATER RESOURCE SYSTEM - "Monterey Peninsula Water Resource System":

(a) shall refer to lands which overlie or are contiguous to (in whole or in part) water in the Carmel River (main stem and tributaries), ground water within the alluvial aquifer, and ground water within the Seaside Coastal Ground water Subbasin, as identified on MPMWD Boundary Map #1, as that may be amended from time to time; or

(b) shall mean the ground water and surface water supplies which serve Cal-Am, other water distribution systems, and private well owners within the District, including the surface water and groundwater resources of the Carmel Valley (both the Carmel River and the Carmel Valley aquifer) and the resources of the Seaside Coastal groundwater subbasin. The Monterey Peninsula Water Resources System shall exclude resources of the Seaside Inland groundwater subbasin, and the Carmel Valley upland formation.

(c) The District shall maintain a current list of Water Distribution Systems within the Monterey Peninsula Water Resource System.

NON-ESSENTIAL WATER USE - "Non-Essential Water Use" shall mean the indiscriminate or excessive dissipation of water which is unproductive, or does not reasonably sustain life or economic benefits. Non-essential water use includes but is not limited to the following:

1. Serving drinking water to any customer, unless expressly requested, by an restaurant, hotel, café, cafeteria or other public place where food is sold, served or offered for sale.

6. Transportation of water from the Monterey Peninsula Water Resources System without prior written authorization from the MPWMD shall be deemed water waste. Emergency or health related situations are exempt from this provision in accordance with Rule 168 (Water Rationing Variance).

7. Operation of a commercial car wash without recycling at least 50 percent of the potable water used per cycle.

8. Use of water for more than minimal landscaping, as defined in the landscaping regulations of the jurisdiction or as described in Article 10.8 of the California Government Code.

9. Use of potable water for street cleaning.

10. Outdoor watering in violation of landscape irrigation restrictions required by Stage 1 Water Conservation.

11. Failure to maintain water use within a mandatory landscape water budget.

12. Misrepresentation of the number of persons permanently residing on a property where water is supplied by a water distribution system or by a private well.

The following activities shall not be cited as Water Waste:

1. Flow resulting from fire fighting or essential inspection of fire hydrants;

2. Water applied to abate spills of flammable or otherwise hazardous materials, where water application is the appropriate methodology;

3. Water applied to prevent or abate health, safety, or accident hazards when alternate methods are not available;

4. Storm run-off;

5. Flow from fire training activities during Stage 1 Water Conservation through Stage 3 Water Conservation;

6. Reasonable quantities of water applied as dust control as required by the Monterey Bay Unified Air Pollution Control Agency, except when prohibited by Regulation XV.

RESPONSIBLE PARTY - "Responsible Party" means the person or persons who assume through the District permit process legal responsibility for the proper performance of the requirements of a permit holder as defined in the Rules and Regulations and/or in conditions attached to a permit. "Responsible Party," when used in the context of the Expanded Water

provide unrestricted access to individual water use records when the District is actively investigating a variance, appeal or other rationing program action.

B. Stage 4 Water Rationing Survey.

1. The General Manager shall conduct a survey of MPWRS water users not deriving their source of supply from Cal-Am prior to effective date of Stage 5 Water Rationing. The survey shall request information to determine the number of permanent residents in each dwelling unit and the lot size of each residential site with permitted water use; the types of uses and amount of water use on non-residential sites; and the number of users and types of use(s) served by each water meter or connection. Only information deemed appropriate for the effective operation of this program will be requested.

2. The District shall mail the survey form to water users not supplied water by Cal-Am. Survey forms shall be completed by the responsible party and returned to the District within 30 days of mailing. The District shall preserve the confidentiality of this survey data.

C. Administration of Survey Data.

1. Cal-Am Water Users. Cal-Am shall maintain survey data for all MPWRS water users supplied water by Cal-Am and shall provide the District with access to all data. Cal-Am shall provide the District with an annual summary of survey information, or more frequently as required by the General Manager. Cal-Am shall preserve the confidentiality of survey data.

2. Non-Cal-Am Water Users. During Stage 5 Water Rationing through Stage 7 Water Rationing, the District shall maintain survey data for all water users supplied water from non-Cal-Am sources subject to those stages.

3. A full or partial survey may be conducted as deemed necessary by the District to maintain accurate data.

4. District staff shall maintain the confidentiality of Cal-Am and non-Cal-Am residential customer survey data. Violations of this provision shall be enforced as a misdemeanor under District law.

D. Reporting.

1. Responsibility of Water User.

a. Each responsible party shall be responsible for accurately reporting the number of permanent residents in the dwelling unit or units or other information deemed appropriate for the effective operation of the program as requested on the survey form.

c. Intentional misrepresentation may cause the assignment of a reduced water ration that may be as low as a ration for one person for a period of twelve (12) months following implementation of Stages 4, 5, 6 or 7 Water Rationing.

4. Audit. The District may periodically audit the survey data for accuracy. Upon question, the District may request additional evidence of residency to demonstrate the number of permanent residents at that site as defined in Rule 11 (Definitions).

E. The provisions of paragraphs A, B, C and D of this Section shall be incorporated into the District Rules and Regulations as Rule 170 (Water User Survey).

Section 9: Landscape Water Audits

A. Landscape audits shall be conducted during Stage 1 Water Conservation by the District and/or Cal-Am or their designated agent(s). Each party is authorized to conduct audits and establish water budgets for all dedicated irrigation meters, large irrigated areas over three acres, and large residential water users supplied by Cal-Am when that system derives its source of supply from the MPWRS. Landscape water audits shall be completed within 180 days of implementation of Stage 1 Water Conservation.

B. Landscape water audits shall be offered by the District and/or Cal-Am or their agent free of charge to all water users of Cal-Am with dedicated landscape meters, large irrigated areas over three acres, and large residential water users. Water use records shall be reviewed annually to identify new water users required to establish a landscape water budget by this Section. Cal-Am shall provide the District with data on all completed water audits.

1. Cal-Am water users shall be required to obtain landscape audits and establish water budgets if the property:

   a. Has a dedicated landscape water meter; or

   b. Is an irrigated area of greater than three acres; or

   c. Is a large residential water user.

2. All Landscape Water Auditors must be approved by the Monterey Peninsula Water Management District.

3. All water users required to complete landscape audits and establish water budgets shall have the option of obtaining a landscape water audit and budget from an approved Landscape Water Auditor of their choice at their own expense.

1. Odd Numbered Properties shall water after 5 p.m. or before 9 a.m. on Saturdays and Wednesdays only. This schedule shall also apply to properties located on the South or West side of the street in cities where no street address is available.

2. Even Numbered Properties shall water after 5 p.m. or before 9 a.m. on Sundays and Thursdays only. This schedule shall also apply to properties located on the North or East side of the street in cities where no street address is available.

F. The provisions of paragraphs A through E, inclusive, of this Section shall be incorporated into the District Rules and Regulations as Rule 172 (Landscape Water Budgets).

Section 10: Stage 1 Water Conservation

A. Stage 1 Water Conservation is defined as the first stage in the District's Expanded Water Conservation and Standby Rationing Plan that takes action to maintain Cal-Am water derived from the MPWRS below regulatory constraints by increasing conservation activities and preparing for further stages of conservation and rationing. During Stage 1 Water Conservation, Cal-Am shall have the goal of maintaining its annual (October 1 through September 30) water production from the Carmel Valley below 11,285 acre-feet. This quantity may be modified by the SWRCB. Assuming a maximum annual production of 4,000 acre-feet from the Seaside Coastal Basin, this equates to a Cal-Am system production limit of 15,285 acre-feet. Each water user deriving water from the Cal-Am system that derives its source of supply from the MPWRS shall comply with District water waste and non-essential water use prohibitions and shall participate to the extent possible in voluntarily reducing water use.

B. All water users with the Monterey Peninsula Water Management District shall comply with water waste and non-essential water use prohibitions.

C. The provisions of paragraphs A and B of this Section shall be incorporated into the District Rules and Regulations as Rule 161 (Stage 1 Water Conservation).

Section 11: Stage 2 Water Conservation

A. Stage 2 Water Conservation is defined as the second stage in the District's Expanded Water Conservation and Standby Rationing Plan that takes action to maintain Cal-Am water use from the MPWRS below regulatory constraints by requiring implementation of landscape water budgets for large irrigators of three acres or more, large residential water users and water users with dedicated landscape water meters.

B. Stage 2 Water Conservation shall be enforced when Cal-Am production from the MPWRS has exceeded the year-to-date at month-end target as displayed in Table 1, and Cal-Am unaccounted for water uses are at or below an average of seven (7) percent for the most recent twelve month period.

C. Requirements imposed by implementation of the Expanded Water Conservation and Standby Rationing Plan through Stage 1 Water Conservation shall remain in force. Requirements may be modified or superseded by actions taken in future stages of the Expanded Water Conservation and Standby Rationing Plan.

D. Implementation of Landscape Water Budgets. All water users required to obtain a landscape water budget in Section 9-B are required to manage outdoor irrigation within the landscape water budget assigned to the property.

E. Water use in excess of the established landscape water budget shall be considered Water Waste and shall be subject to the Section 18 of this regulation.

F. Sunset of Stage 2 Water Conservation. Without further action of the Board of Directors, the provisions of Stage 2 Water Conservation shall be rescinded and revert to Stage 1 Water Conservation upon compliance with the year-to-date at month-end production goal for the first two months of the subsequent water year

G. The provisions of paragraphs A, B, C, D, E and F of this Section shall be incorporated into the District Rules and Regulations as Rule 162 (Stage 2 Water Conservation).

Section 12: Stage 3 Water Conservation

A. Stage 3 Water Conservation is defined as the third stage in the District's Expanded Water Conservation and Standby Rationing Plan that takes action to maintain Cal-Am water use in the MPWRS below regulatory constraints.

Prior to implementation of Stage 3 Water Conservation, the General Manager shall review the Cal-Am unaccounted for water uses in the MPWRS and shall determine that unaccounted for water uses are at or below an average of seven percent for the most recent twelve month period. In the event unaccounted for water uses exceed seven percent, Cal-Am shall immediately submit a plan to the General Manager to reduce unaccounted for water uses and shall immediately act on such plan. The General Manager shall have the authority to delay implementation of Stage 3 Water Conservation for one month to allow Cal-Am sufficient time to correct unaccounted for water uses to achieve the year-to-date production at month-end target in the following month.

B. Regulatory Trigger. Stage 3 Water Conservation shall be enforced when Cal-Am production from the MPWRS has exceeded the year-to-date at month-end target as displayed in Table 1 for a second time in any water year, and Cal-Am unaccounted for water uses in the MPWRS are at or below an average of seven percent for the most recent twelve month period.

C. Sunset of Stage 3 Water Conservation. Without further action by the Board of Directors, the provisions of Stage 3 Water Conservation shall be rescinded upon compliance with the year-to-date at month-end production goal for the first two months of the subsequent water year. Water

Cal-Am water users. Fifteen percent reductions in the Cal-Am system are achieved through Stage 3 Water Conservation.

B. Trigger.

1. Water Supply Limitation Trigger. Stage 4 Water Rationing shall apply to all water users whose source of supply is derived from the MPWRS. Stage 4 Water Rationing shall become effective on July 1 or such earlier date as may be set by the Board following the District's May Board meeting if total usable storage in the MPWRS on May 1 is less than 31,580 acre-feet and greater than 24,750 acre-feet. If total usable storage is equal to or greater than 31,580 acre-feet on May 1, no water rationing shall be imposed.

2. Emergency Trigger. Stage 4 Water Rationing shall be implemented upon Resolution of the Board of Directors when there is need for an immediate water use reduction requirement in response to an unexpected water supply shortage.

C. Requirements previously imposed by implementation of the Expanded Water Conservation and Standby Rationing Plan shall remain in force. Requirements may be modified or superseded by actions taken in this or future stages of the Expanded Water Conservation and Standby Rationing Plan.

D. The provisions of Stage 3 Water Conservation shall be implemented for all water users of the Cal-Am water distribution system, unless specifically exempt from Stage 4 Water Rationing by action of the Board of Directors.

E. Sunset of Stage 4 Water Rationing.

1. Water Supply Availability. Stage 4 Water Rationing shall continue to have force and effect until rescinded by Resolution of the Board of Directors upon a determination that the total usable storage in the MPWRS is greater than 31,580 acre-feet. This determination will normally be made at the Board's May meeting. However, a determination to rescind Stage 4 Water Rationing as early as the following January Board meeting can be made if the total usable storage in the MPWRS is equal to or greater than 31,580 acre-feet on January 1.

2. In the event total usable storage is greater than 31,580 acre-feet, the General Manager shall review Cal-Am's year-to-date production. Upon compliance with the monthly year-to-date goals specified in Table 1 of Rule 162 and, unless otherwise specified in the Resolution rescinding Stage 4 Water Rationing, water users shall revert to Stage 1 Water Conservation. If Cal-Am's year-to-date production exceeds the year-to-date goal specified in Table 1 of Rule 162, Cal-Am water users shall revert to Stage 2 Water Conservation.

2. Emergency. Implementation shall also occur following urgency action by Resolution of the Board of Directors declaring that an emergency situation exists and immediate 20 percent reductions in water use from a distribution system's production limit are necessary to ensure public health, safety or welfare.

C. Sunset of Stage 5 Water Rationing.

1. Water Supply Availability. Stage 5 Water Rationing shall continue to have force and effect until rescinded by Resolution of the Board of Directors upon a determination that the total usable storage in the MPWRS is greater than 24,750 acre-feet. This determination will normally be made at the Board's May meeting. However, a determination to rescind Stage 5 Water Rationing as early as the following January Board meeting can be made if the total usable storage in the MPWRS is equal to or greater than 31,580 acre-feet on January 1.

2. In the event total usable storage is greater than 31,580 acre-feet, the General Manager shall review Cal-Am's year-to-date production. Upon compliance with the monthly year-to-date goals specified in Table 1 of Rule 162 and, unless otherwise specified in the Resolution rescinding Stage 5 Water Rationing, water users shall revert to Stage 1 Water Conservation. If Cal-Am's year-to-date production exceeds the year-to-date goal specified in Table 1 of Rule 162, Cal-Am water users shall revert to Stage 2 Water Conservation.

   a. If Cal-Am production exceeds the year-to-date at months end production goal as shown in Rule 162, Table 1, Cal-Am water users shall revert to Stage 2 Water Conservation.

D. Affected Water Users. Stage 5 Water Rationing shall apply to all water users within the MPWRS. As necessary to ensure adequate water supplies, the Board of Directors may act within its discretion to authorize activation of Stage 5 Water Rationing within one or more water distribution systems in the District.

E. Requirements imposed by implementation of the Expanded Water Conservation and Standby Rationing Plan through Stage 4 Water Conservation shall remain in force. Requirements may be modified or superseded by actions taken in this or future stages of the Expanded Water Conservation and Standby Rationing Plan.

F. Moratorium. On October 1 following implementation of Stage 5 Water Rationing, the District shall suspend the issuance of water permits associated with an intensification in use. This provision shall not suspend the issuance of water permits that utilize public or private Water Use Credits or where issuance of a permit is required by prior agreement of the District.

G. Reduction Goal. Stage 5 Water Rationing achieves water use reductions of 20 percent of the Cal-Am and non-Cal-Am system production limits in each user category as follows:

determined using the same methodology as for Cal-Am without including a deduction for unaccounted for water uses. The non-Cal-Am annual production limit for the Monterey Peninsula Water Resources System shall be used as the maximum production limit.

L. Establishing the Rations. Rations for each user category shall be determined by the General Manager by dividing the reduced available production by the percentage of use. The percentage of use for each user group shall be determined by the most recent unrationed reporting year (July 1 through June 30) data provided by Cal-Am for water users of that portion of Cal-Am that derives water from the MPWRS, and by data provided by the District from its annual well reporting program for non-Cal-Am distribution systems.

1. Residential Water Users. Each residential water user either served by a water meter reported as "single-family residential" by the water distribution system or served by a private well shall have an equal portion of the water available to the single-family residential category based upon the number of residents reported on the survey form.

2. Multi-Family Residential Water Users. Each multi-family residential water user either served by a water meter reported as "multi-family residential" by the water distribution system or served by a private well shall have an equal portion of the water available to the multi-family residential category based upon the number of residents reported on the survey form with the following exception:

   a. Multi-family residential sites with common laundry facilities on a separate water meter shall receive a one unit water ration for each dwelling unit that has access to the facility. Each dwelling unit located on the multi-family residential site that has access to the common laundry facility shall have the dwelling unit ration reduced by one unit of water.

3. Commercial/Industrial Water Users. Each commercial/industrial water user either served by a water meter reported as "commercial" or "industrial" by the water distribution system shall have a base ration determined by applying the current commercial water use factors.

   a. Mixed Use Water Users. Mixed use water users shall be classified as commercial uses for the purposes of this program.

4. Public Authority. Public Authority Uses shall be rationed by jurisdiction. Each Public Authority water user may combine multiple accounts or connections when the accounts are located within one jurisdiction.

5. Golf Courses. Golf Courses supplied water exclusively by the Cal-Am or non-Cal-Am water distribution systems or wells may be rationed individually or, upon request to the General Manager, as a group.

6. Other. Water users utilizing portable water meters or hydrant meters shall be required to

Section 15: Stage 6 Water Rationing

A. Stage 6 Water Rationing is defined as the sixth stage in the District's Expanded Water Conservation and Standby Rationing Plan that responds to a drought situation or emergency water supply shortage with a 35 percent reduction goal from system production limits. Reductions are achieved by water use cutbacks by user category and by per-capita water rations and a moratorium on water permits that utilize water credits.

B. Implementation.

1. Water Supply Limitation Trigger. Stage 6 Water Rationing shall apply to all water users whose source of supply is derived from the MPWRS. Stage 6 Water Rationing shall become effective on June 1 or such earlier date as may be set by the Board following the District's May Board meeting if total usable storage in the MPWRS on May 1 is less than 17,720 acre-feet and greater than 10,890 acre-feet. If total usable storage is equal to or greater than 31,580 acre-feet on May 1, no water rationing shall be imposed.

2. Implementation shall also occur following urgency action by Resolution of the Board of Directors declaring that an emergency situation exists and immediate 35 percent reductions in water use from a distribution system's production limit are necessary to ensure public health, safety or welfare.

C. Sunset of Stage 6 Water Rationing.

1. Water Supply Availability. Stage 6 Water Rationing shall continue to have force and effect until rescinded by Resolution of the Board of Directors upon a determination that the total usable storage in the MPWRS is greater than 17,720 acre-feet. This determination will normally be made at the Board's May meeting. However, a determination to rescind Stage 6 Water Rationing as early as the following January Board meeting can be made if the total usable storage in the MPWRS is equal to or greater than 31,580 acre-feet on January 1.

2. In the event total usable storage is greater than 31,580 acre-feet, the General Manager shall review Cal-Am's year-to-date production. Upon compliance with the monthly year-to-date goals specified in Table 1 of Rule 162 and, unless otherwise specified in the Resolution rescinding Stage 6 Water Rationing, water users shall revert to Stage 1 Water Conservation. If Cal-Am's year-to-date production exceeds the year-to-date goal specified in Table 1 of Rule 162, Cal-Am water users shall revert to Stage 2 Water Conservation.

D. Affected Water Users. Stage 6 Water Rationing shall apply to all water users within the Monterey Peninsula Water Resources System. As necessary to ensure adequate water supplies, the Board of Directors may act within its discretion to authorize activation of Stage 6 Water Rationing within one or more water distribution systems in the District.

J. Reduced Annual Cal-Am Annual Production During Stage 6 Water Rationing. The Cal-Am annual production limit shall be reduced by 35 percent during Stage 6 Water Rationing. The resulting production limit shall be further reduced by a water rationing contingency determined by the Board. Seven (7) percent of the remainder shall be the maximum Cal-Am unaccounted for water use ration. The remaining water shall be the Cal-Am annual production limit for all user categories.

K. Non-Cal-Am Annual Production Limits During Stage 6 Water Rationing. Available production for other water distribution systems subject to Stage 6 Water Rationing shall be determined using the same methodology as for Cal-Am without including a deduction for unaccounted for water uses. The non-Cal-Am annual production limit for the Monterey Peninsula Water Resources System shall be used as the maximum production limit.

L. Establishing the Rations. Rations for each user category shall be determined by the General Manager by dividing the reduced available production by the percentage of use and by taking into consideration residential water needs to ensure health, safety and welfare. The percentage of use for each user group shall be determined by the most recent unrationed reporting year (July 1 through June 30) data provided by Cal-Am for water users of that portion of Cal-Am that derives water from the MPWRS, and by data provided by the District from its annual well reporting program for non-Cal-Am distribution systems.

1. All water users shall be rationed by user category as outlined in Rule 165 (Stage 5 Water Rationing).

M. The Board shall consider adopting restrictions on non-residential outdoor water use that may include any or all of the following: Limit outdoor watering to one day per week, one day every other week, or prohibit outdoor irrigation with water from the effected water resource system(s); prohibit irrigation of non-turf areas with water from the affected water resource system(s); reduce golf course irrigation from the effected water distribution system(s) to a percentage of the amount required to water tees, greens and landing areas only. The use of reclaimed water, when available, shall not be restricted by this requirement.

N. Elimination or modification of commercial/industrial variances for Best Management Practices. The General Manager shall be authorized to require a percentage reduction of all commercial/industrial water users granted a variance for complying with BMPs for the type of use. The amount of the percentage reduction shall be determined by the General Manager following review of the success of commercial/industrial rationing during Stage 5 Water Rationing prior to Stage 6 Water Rationing.

O. All water users shall cease operation and maintenance of all ornamental water uses (fountains, ponds, etc.) that use water from the effected water supply system(s). Ornamental water uses supplied with water from other sources shall clearly display information about the source of water on or immediately adjacent to the use;

specified in Table 1 of Rule 162, Cal-Am water users shall revert to Stage 2 Water Conservation.

D. Affected Water Users. Stage 7 Water Rationing shall apply to all water users within the Monterey Peninsula Water Resources System. As necessary to ensure adequate water supplies, the Board of Directors may act within its discretion to authorize activation of Stage 7 Water Rationing within one or more water distribution systems in the District.

E. Requirements imposed by implementation of the Expanded Water Conservation and Standby Rationing Plan through Stage 6 Water Rationing shall remain in force. Requirements may be modified or superseded by actions taken in this or future stages of the Expanded Water Conservation and Standby Rationing Plan.

F. Reduction Goal. Stage 7 Water Rationing achieves water use reductions of 50 percent of the Cal-Am and non-Cal-Am system production limits in each user category as follows: Residential single-family and multi-family, commercial/industrial, public authority, golf course, "other," non-revenue metered uses, and reclaimed water users.

G. Notice.

1. Cal-Am shall provide written notice of mandatory water rationing to every residence and to every non-residential business or water user within the Cal-Am system via first-class mail at least thirty (30) days before the first day of rationing. Further, Cal-Am shall send monthly reminders of water rationing in the water bill along with information showing the water ration and the quantity of the water ration consumed by the responsible party. Finally, Cal-Am shall provide each responsible party with a survey form upon request.

2. All water distribution system operators effected by Stage 7 Water Rationing shall provide written notice of mandatory water rationing to every residence and to every non-residential business or water user within the water distribution system via first-class mail at least thirty (30) days before the first day of rationing. Further, the distribution system operator shall send monthly reminders of water rationing in the water bill along with information showing the water ration and the quantity of the water ration consumed by the responsible party. Finally, the water distribution system operator shall provide each responsible party with a survey form at least once each calendar year. Water distribution system operators shall ensure that notices provided or required by the District shall be distributed to the system water users.

3. The District shall contact all water users of private wells not supplying water to a distribution system within the MPWRS at least thirty (30) days before the first day of Stage 7 Water Rationing. Contact shall be via first class mail and shall explain the restrictions placed on the use of private wells during Stage 7 Water Rationing and shall provide and/or request additional information from the private well owner as deemed necessary for the efficient operation of the program.

N. Prohibition On The Use of Portable Water Meters and Hydrant Meters. Water users utilizing portable water meters or hydrant meters shall be required to cease use of water from the effected water supply system(s). Each water user reporting as "other" by the distribution system shall be notified by the distribution system operator of this requirement. Portable water meters shall be returned to the water company at least 30 days before the implementation of Stage 7 Water Rationing.

O. The provisions of paragraphs A through N, inclusive, of this Section shall be incorporated into the District Rules and Regulations as Rule 167 (Stage 7 Water Rationing).

Section 17: Water Banks

A. Water banks shall be available to each water user during Stages 5 through 7 Water Rationing. A water bank shall allow each water user to accrue the unused portion of a monthly ration for use in the current calendar year.

B. Water banks shall be reset to zero on January 1 of each year. Ten (10) percent of the remaining water bank on December 31 shall be credited to the following year's water bank for three months to allow the establishment of a new bank.

C. On April 1, each water bank shall be reduced by the amount of banked water carried over on January 1. Water banks may not carry less than a zero balance.

D. The provisions paragraphs A through C, inclusive, of this Section shall be incorporated into the District Rules and Regulations as Rule 168 (Water Banks).

Section 18: Water Waste Fees

A. Each occurrence of Water Waste or Non-Essential Water Use, as those terms are defined by Rule No. 11 (Definitions), which continues after the water user has had reasonable notice to cease and desist that type of water use shall constitute a flagrant occurrence.

B. A $50 fee shall be assessed for each flagrant occurrence of Water Waste or Non-Essential Water Use

C. A $150 fee shall be imposed for each subsequent occurrence (including multiple occurrences) of Water Waste or Non-Essential Water Use which occurs within 18 months of the first occurrence.

D. All fees shall be paid within 30 days.

E. Within the 30 day period, a water user may seek waiver or forgiveness of all or part of the Water Waste fees on the basis of hardship. The water user must provide the District with a written explanation as to why the fees should not be collected. Staff shall be authorized to

9. Emergency, extreme, or unusual situations on a case-by-case basis;

C. No Variance. The following categories of water use shall not qualify for special consideration under the provisions of this regulation:

1. Visitors other than those occupying short-term residential housing as defined in Rule 11 (Definitions) when the property owner has submitted a completed survey form with the applicable information about the occupancy of the site;

2. Irrigation, other than variances allowed by Section 19-B of this regulation.

3. Filling spas, ponds, fountains, etc.;

4. Long-term leaks that are not repaired after reasonable notice.

D. Waiver of Excess Fees by Variance Application. Any qualifying water user may seek to have all or part of the water waste fee for excess water use waived or forgiven through the Rationing Variance process set forth in this Rule. Any water user may seek relief from the water waste fee upon substantial evidence that the excess water use was beyond the user's control, and was not reasonably correctable in a timely fashion due to special and unique circumstances. Due diligence must be shown to forgive any water waste caused by a leak; under no circumstance shall a leak justify the forgiveness of an excess use fee for more than three billing periods. The applicant shall further demonstrate that all reasonable means have been taken to conserve water and minimize future water use.

1. The General Manager or his agent may grant any application to waive water waste fees upon submittal of the appropriate evidence to warrant a variance. All applicants for variance shall submit the appropriate Variance Request Form and processing fee of $60. Any action to waive a water waste fee shall be recorded in writing and include a written explanation to substantiate and justify the waiver;

2. Although inspections shall not be required in all cases, District staff shall use spot or random inspections as necessary to verify an applicant's eligibility for a water rationing variance.

3. Each person making written application for a variance shall be notified in writing of the disposition of their application. Decisions of the General Manager are final.

E. The provisions of paragraphs A, B, C and D of this Section shall be incorporated into the District Rules and Regulations as Rule 169 (Water Rationing Variance).

B. Flow Restrictor Exemption. Exemptions to the installation of a flow restrictor as a means to enforce the water ration shall occur when there are provable risks to the health, safety and/or welfare of the water user. The following shall apply in the event a flow restrictor cannot be installed in the water meter or water supply providing water to a property due to health, safety or welfare requirements:

1. Water Meters Serving Three or More Multi-Family Dwelling Units. The responsible party shall be charged $150 times the number of dwelling units located on the meter during each month in which a violation of the water ration occurs. The responsible party shall be liable for payment of all excess water use charges.

C. All notices and assessments of water waste and/or excess water use charges made by a water distribution system operator shall be reported to the District.

D. The provisions of paragraphs A, B and C of this Section shall be incorporated into the District Rules and Regulations as Rule 175 (Water Rationing Enforcement).

Section 21: Regulation of Well Owners/Operators and Extractors

A. During a water supply emergency, each owner/operator or extractor of a private water well or other water-gathering facility shall comply with the provisions of this regulation, as they relate to such well.

B. The provisions of paragraph A of this Section shall be incorporated into the District Rules and Regulations as Rule 174 (Regulation of Well Owners/Operators and Extractors).

Section 22: Funding

A. All costs associated with the administration of the Expanded Water Conservation and Standby Rationing Plan for water users of Cal-Am shall be paid by Cal-Am. All charges collected by Cal-Am shall be used to underwrite costs of administration, enforcement, education, and other necessary activities relating to the water supply emergency of both the District and Cal-Am. Charges for costs incurred under the Expanded Water Conservation and Standby Rationing Plan shall be paid to cover the actual costs of administration, enforcement, education, and other activities relating to the water supply emergency.

B. Administration of water rationing for water users not supplied by Cal-Am shall be paid by the water user.

Section 23: Modification of P.U.C. Rationing Standards

The General Manager shall take action as necessary to ensure that rules of the California Public Utilities Commission enable any water distribution system to enforce or collect fees, charges, surcharges pursuant to the rationing standards set forth by this ordinance, including but not limited to water restrictor installation and, if warranted, service disconnection.

Section 31: **Severability**

If any section, sub-section, sentence, clause, or phrase of this ordinance is for any reason held to be invalid, such decision shall not affect the validity of the remaining portions of this ordinance. The Board of Directors hereby declares that it would have passed this ordinance and each section, subsection, sentence, clause, and phrase thereof, irrespective of the fact that any one or more sections, sub-sections, sentences, clauses, or phrases may be declared invalid.

On motion of Director Ernst, and second by Director Edwards, the foregoing Ordinance is duly passed to print the 28th day of January 1999, by the following vote:

AYES: Directors Chesshire, Ely, Ernst, Edwards, Hughes, Pendergrass

NAYS: None

ABSENT: Director Potter

I, Darby Fuerst, Secretary to the Board of Directors of the Monterey Peninsula Water Management District, hereby certify that the foregoing is an ordinance duly adopted on the 28th day of January, 1999.

Witness my hand and seal of the Board of Directors this third day of February, 1999.

Darby W. Fuerst

Darby Fuerst, Secretary to the Board

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FINAL
ORDINANCE 119
AN ORDINANCE OF THE BOARD OF DIRECTORS OF THE MONTEREY PENINSULA WATER MANAGEMENT DISTRICT AMENDING DISTRICT RULES TO MODIFY THE EXPANDED WATER CONSERVATION AND STANDBY WATER RATIONING PLAN

FINDINGS

1. The Water Management District is charged under the Monterey Peninsula Water Management District Law with the integrated management of the ground and surface water resources in the Monterey Peninsula area.

2. The Water Management District has general and specific power to cause and implement water conservation activities as set forth in Sections 325 and 328 of the Monterey Peninsula Water Management District Law.

3. This Ordinance is enacted to respond to present and threatened water emergencies, as provided by Section 332 of the District Law. Water emergencies addressed by this ordinance are created by legal circumstances which constrain the amount of water that is available to serve water users in the Monterey Peninsula area.

4. State Water Resources Control Board (SWRCB) Order No. WR 95-10, issued in July 1995, ruled that California-American Water Company (Cal-Am) did not have a legal right to take approximately 69 percent of the water historically supplied to Cal-Am users. The SWRCB has set specific goals to reduce Cal-Am's water diversions from the Carmel River Basin.

5. Under SWRCB Order No. WR 95-10, Cal-Am has been ordered to reduce its historical diversion from the Carmel River Basin by 20 percent in Water Year 1997 and each subsequent year until a major new water supply is in place to offset the illegal diversion.

6. Excessive water consumption in the winter and spring of 2004 necessitated an emergency request by Cal-Am to the California Public Utilities Commission (CPUC) to temporarily increase rates for water service to avoid SWRCB violations. Existing District rules did not include regulation for this consumption emergency.

7. Amendments to District Rules are necessary to address a water emergency caused when increased consumption would force diversions over the legal limits set by SWRCB Order WR 95-10, to reflect current diversion protocols based on subsequent SWRCB Orders, and to facilitate emergency conservation rate authority for Cal-Am with the CPUC.

8. This ordinance shall be reviewed and approved under the California Environmental Quality Act (CEQA) based upon a Negative Declaration.

NOW THEREFORE be it ordained as follows:

ORDINANCE

- ~~Ø A mechanism to implement excessive use rates or accelerated rate increases during Stage 3 Water Conservation as a mechanism to discourage excessive water use;~~

- ~~Ø A statement regarding the confidentiality of information gathered pertaining to the number of residents on single family and multi-family accounts.~~

Section Four: Amendment of Rule 162 (Stage 2 Water Conservation)

District Rule 162 shall be amended by deleting the following provisions shown in strikeout text (~~strikeout~~) and by adding the following provisions set forth in italicized and bold face type (***bold face***).

RULE 162 STAGE 2 WATER CONSERVATION

A. Stage 2 Water Conservation is defined as the second stage in the District's Expanded Water Conservation and Standby Rationing Plan that takes action to maintain Cal-Am water use from the MPWRS below regulatory constraints by requiring implementation of ~~l~~*L*andscape ~~w~~*W*ater ~~b~~*B*udgets for large irrigators of three acres or more, large residential water users and water users with dedicated landscape water meters.

B. Stage 2 Water Conservation shall be enforced when Cal-Am production from the MPWRS has exceeded the year-to-date at month-end target as displayed in Table 1~~, and Cal-Am unaccounted for water uses are at or below an average of seven (7) percent for the most recent twelve month period~~.

~~Prior to implementation of Stage 2 Water Conservation, the General Manager shall review the Cal-Am unaccounted for water uses in the MPWRS and shall determine that unaccounted for water uses are at or below an average of seven percent for the most recent twelve month period. In the event unaccounted for water uses exceed seven percent, Cal-Am shall immediately submit a plan to the General Manager to reduce unaccounted for water uses and shall immediately act on such plan. The General Manager shall have the authority to delay implementation of Stage 2 Water Conservation for one month to allow Cal-Am sufficient time to correct unaccounted for water uses to achieve the year-to-date production at month-end target in the following month.~~

The monthly distribution of water production shown in Table 1 between sources in the Carmel River Basin and in the coastal subareas of the Seaside Groundwater Basin shall be approved by the Board of Directors as part of the Quarterly Water Supply Strategy and Budget process. The Board shall hold public hearings to consider the water supply budgets for Cal-Am's main system during the Board's regular meetings in September, December, March, and June, at which time the Board may modify Table 1 by Resolution.

Table 1
REGULATORY WATER PRODUCTION TARGETS FOR CALIFORNIA AMERICAN WATER MAIN SYSTEM FROM SOURCES WITHIN THE MONTEREY PENINSULA WATER RESOURCES SYSTEM

Month	*Monthly Target*	*Year-to-Date At Month-End Target*
October	*1,379*	*1,379*

C. Requirements imposed by implementation of the Expanded Water Conservation and Standby Rationing Plan through Stage 1 Water Conservation shall remain in force. Requirements may be modified or superseded by actions taken in future stages of the Expanded Water Conservation and Standby Rationing Plan.

D. Implementation of Landscape Water Budgets. All water users required to obtain a ~~l~~*L*andscape ~~w~~*W*ater ~~b~~*B*udget ~~in Section 9 B~~ ***under District Rule 172*** are required to manage outdoor irrigation within the ~~l~~*L*andscape ~~w~~*W*ater ~~b~~*B*udget assigned to the property.

E. Water use in excess of the established ~~l~~*L*andscape ~~w~~*W*ater ~~b~~*B*udget shall be considered Water Waste and shall be subject to ~~the Section 18 of this regulation~~ ***District Rule 171.***

period from October 1 through March 31 in any water year, ***or 2) the average of Cal-Am's year-to-date production from the MPWRS for each month has exceeded the year-to-date at month-end production target for Cal-Am from the MPWRS as displayed in Table 1 once during the period from April 1 through September 30 in any water year, or 3) a Resolution has been adopted by the Board in accord with Section C below*** ~~and Cal-Am unaccounted for water uses in the MPWRS are at or below an average of seven percent for the most recent twelve month period~~.

C. Emergency Trigger. Stage 3 Water Conservation shall be implemented upon Resolution of the Board of Directors when there is need for an immediate water use reduction requirement in response to an unexpected water production increase.

~~C.~~ ***D.*** Sunset of Stage 3 Water Conservation. Without further action by the Board of Directors, the provisions of Stage 3 Water Conservation shall be rescinded upon compliance with the year-to-date at month-end production goal for ~~the first~~ two ***consecutive*** months ~~of~~ ***in*** the subsequent water year. Water users of Cal-Am when that water system derives water from the MPWRS shall revert to Stage 1 Water Conservation.

~~(a)~~ Regulatory compliance during a period of Stage 4 Water Rationing shall not cause a sunset of this provision.

~~D.~~ ***E.*** Notice. Cal-Am shall provide notice of mandatory water conservation with each bill prepared for water users of the Cal-Am system.

~~E. Cal-Am Excessive Use Rates. Section 12-E requires approval by the Public Utilities Commission (PUC) prior to implementation.~~

~~1. Cal-Am shall use the ECU factor of each water user for computation of the base water rate block and the related base use.~~

~~2. Excessive use rates shall be applied to water use over 150 percent of the base use.~~

~~3. Excessive use rates shall be established by multiplying the base block rate of rate blocks 4 and 5 of Cal-Am's per-capita based rate tariff by 400 percent. The difference between the base rate for rate block 4 and 5, and the 400 percent excessive use rate shall be the actual excessive use rate and shall be designated separately from the standard water rate billing.~~

~~4. In the event that excessive use rates are not authorized by the California Public Utilities Commission, the base use shall become a base ration and use above the base rate shall be considered non-essential water use.~~

F. Cal-Am Emergency Use Rates. Cal-Am shall implement the California Public Utilities Commission (CPUC) approved emergency rate schedule to respond to Stage 3 water reduction requirements. Cal-Am shall file an Advice Letter with the CPUC to implement Emergency Use Rates, however, only after it has first met and conferred with the District at least five days in advance of that filing. The General Manager may waive this time period for good cause.

~~F. Cal-Am Use Prior to PUC Approval of Excessive Use Rates.~~

~~1. Upon implementation of Stage 3 Water Conservation, the District shall consider water use above the Cal-Am base rate to be non-essential water use subject to~~

RULE 165 STAGE 5 WATER RATIONING

[NOTE: No changes are proposed to Section A.]

B. Implementation.

1. Water Supply Limitation Trigger. Stage 5 Water Rationing shall apply to all water users whose source of supply is derived from the MPWRS. Stage 5 Water Rationing shall become effective on June 1 or such earlier date as may be set by the Board following the District's May Board meeting if total usable storage in the MPWRS on May 1 is less than ~~24,750~~ ***21,802*** acre-feet and greater than ~~17,720~~ ***15,615*** acre-feet. If total usable storage is equal to or greater than ~~31,580~~ ***27,807*** acre-feet on May 1, no water rationing shall be imposed.

   ~~a.~~ The General Manager may delay implementation of Stage 5 Water Rationing to ensure adequate operation of the program. Delays authorized by the General Manager shall not exceed 90 days.

2. Emergency. Implementation shall also occur following urgency action by Resolution of the Board of Directors declaring that an emergency situation exists and immediate 20 percent reductions in water use from a distribution system's production limit are necessary to ensure public health, safety or welfare.

C. Sunset of Stage 5 Water Rationing.

1. Water Supply Availability. Stage 5 Water Rationing shall continue to have force and effect until rescinded by Resolution of the Board of Directors upon a determination that the total usable storage in the MPWRS is greater than ~~24,750~~ ***21,802*** acre-feet. This determination will normally be made at the Board's May meeting. However, a determination to rescind Stage 5 Water Rationing as early as the following January Board meeting can be made if the total usable storage in the MPWRS is equal to or greater than ~~31,580~~ ***27,807*** acre-feet on January 1.

2. In the event total usable storage is greater than ~~31,580~~ ***27,807*** acre-feet, the General Manager shall review Cal-Am's year-to-date production. Upon compliance with the monthly year-to-date goals specified in Table 1 of Rule 162 and, unless otherwise specified in the Resolution rescinding Stage 5 Water Rationing, water users shall revert to Stage 1 Water Conservation. If Cal-Am's year-to-date production exceeds the year-to-date goal specified in Table 1 of Rule 162, Cal-Am water users shall revert to Stage 2 Water Conservation.

   ~~a.~~ If Cal-Am production exceeds the year-to-date at month's end production goal as shown in Rule 162, Table 1, Cal-Am water users shall revert to Stage 2 Water Conservation.

[NOTE: No changes are proposed to Sections D through K.]

L. Establishing the Rations. Rations for each user category shall be determined by the General Manager by dividing the reduced available production by the percentage of use. The percentage of use for each user group shall be determined by the most recent unrationed reporting year (July 1 through June 30) data provided by Cal-Am for water users of that portion of Cal-Am that derives water from the MPWRS, and by data provided by the District from its annual well reporting program for non-Cal-Am distribution systems.

The District shall ensure that the water provided during water rationing is of adequate quality. If the quality does not satisfy the contractual agreement operative before the Project Expansion is deemed Completed (as the capitalized terms are defined in Rule 23.5), potable water shall be provided in sufficient quantities to improve the quality of the reclaimed water.

This Subsection L.9.a shall cease to be operative once the Project Expansion is deemed to be Completed (as the capitalized terms are defined in Rule 23.5), and shall thereafter be of no force or effect.

b. *When Project Expansion Is Completed. Under the agreements operative once the Project Expansion is deemed Completed (as the capitalized terms are defined in Rule 23.5), the owners of the Recycled Water Irrigation Areas shall have the respective irrigation requirements thereof satisfied to the same degree as any non-Project golf course or open space which derives its source of supply from the Cal-Am system. The irrigation requirements of the Recycled Water Irrigation Areas will be determined based on the most-recent non-rationed four-year average irrigation water demand, including both Recycled Water and potable water, for each respective Recycled Water Irrigation Area.*

Each Recycled Water Irrigation Area shall be entitled to receive the average irrigation requirement determined above, reduced by the percentage reduction required by the current stage of rationing. If the quantity of Recycled Water that is available is less than the quantity of water that the Recycled Water Irrigation Area is entitled to, potable water shall be provided to make up the difference and satisfy the irrigation requirements of the Recycled Water Irrigation Areas to the same degree that the irrigation requirements of non-Project golf course and open space users are being satisfied.

The preceding sentence shall not apply to the extent that the irrigation requirements of any Recycled Water Irrigation Area are met with water legally available to Buyer from any source other than the Carmel River System or the Seaside Groundwater Basin, including percolating ground water underlying Buyer's Property, to make up any such difference.

When Recycled Water (as defined in Rule 23.5) is available in sufficient quantities to satisfy the irrigation requirements of the Recycled Water Irrigation Areas, such irrigation shall not be subject to Stages 5 Water Rationing and higher, and neither potable water nor any water described in the preceding sentence (whether or not it is potable) shall be used for irrigation of the Recycled Water Irrigation Areas except to the extent allowed in the circumstances described in the next two sentences.

If there is an Interruption in Recycled Water deliveries to any Recycled Water Irrigation Area(as the capitalized terms are defined in Rule 23.5), the temporary use of potable water for irrigating each such Recycled Water Irrigation Area is authorized in the manner described in Rule 23.5, Subsection F.

If MPWMD has adopted an ordinance in response to any emergency caused by drought, or other threatened or existing water shortage pursuant to section 332 of the Monterey Peninsula Water Management Law, said ordinance shall prevail over contrary provisions of this Rule. Notwithstanding the preceding sentence, potable water shall be made available for irrigating tees and greens of the Recycled Water Irrigation Areas in sufficient quantities to maintain them in

2. In the event total usable storage is greater than ~~31,580~~ ***27,807*** acre-feet, the General Manager shall review Cal-Am's year-to-date production. Upon compliance with the monthly year-to-date goals specified in Table 1 of Rule 162 and, unless otherwise specified in the Resolution rescinding Stage 6 Water Rationing, water users shall revert to Stage 1 Water Conservation. If Cal-Am's year-to-date production exceeds the year-to-date goal specified in Table 1 of Rule 162, Cal-Am water users shall revert to Stage 2 Water Conservation.

[NOTE: No changes are proposed to Sections D through P.]

Section Nine: **Amendment of Rule 167 (Stage 7 Water Rationing)**

District Rule 167 shall be amended by deleting the following provisions shown in strikeout text (~~strikeout~~) and by adding the following provisions set forth in italicized and bold face type (***bold face***).

RULE 167 STAGE 7 WATER RATIONING

[NOTE: No changes are proposed to Section A.]

B. Implementation.

1. Water Supply Limitation Trigger. Stage 7 Water Rationing shall apply to all water users whose source of supply is derived from the MPWRS. Stage 7 Water Rationing shall become effective on ~~July~~ ***June*** 1 or such earlier date as may be set by the Board following the District's May Board meeting if total usable storage in the MPWRS on May 1 is less than ~~10,890~~ ***9,610*** acre-feet. If total usable storage is equal to or greater than ~~31,580~~ ***27,807*** acre-feet on May 1, no water rationing shall be imposed.

2. Implementation shall also occur following urgency action by Resolution of the board of Directors declaring that an emergency situation exists and immediate 50 percent reductions in water use from a distribution system's production limit are necessary to ensure public health, safety or welfare.

C. Sunset of Stage 7 Water Rationing.

1. Water Supply Availability. Stage 7 Water Rationing shall continue to have force and effect until rescinded by Resolution of the Board of Directors upon a determination that the total usable storage in the MPWRS is greater than ~~10,890~~ ***9,610*** acre-feet. This determination will normally be made at the Board's May meeting. However, a determination to rescind Stage 7 Water Rationing as early as the following January Board meeting can be made if the total usable storage in the MPWRS is equal to or greater than ~~31,580~~ ***27,807*** acre-feet on January 1.

2. In the event total usable storage is greater than ~~31,580~~ ***27,807*** acre-feet, the General Manager shall review Cal-Am's year-to-date production. Upon compliance with the monthly year-to-date goals specified in Table 1 of Rule 162 and, unless otherwise specified in the Resolution rescinding Stage 7 Water Rationing, water users shall revert to Stage 1 Water Conservation. If Cal-Am's year-to-date production exceeds the year-to-date goal specified in Table 1 of Rule 162, Cal-Am water users shall revert to Stage 2 Water Conservation.

[NOTE: No changes are proposed to Sections D through N.]

information about the average number of annual occupants and the average rate of occupancy to the appropriate party as indicated in ~~Section 8~~ ***Rule 170,*** D, 1, b.

~~e.~~ *2.* Misrepresentation Violation. Any water user intentionally over-reporting the number of permanent residents in a dwelling unit or other information pertinent to establishing a water ration during Stages 4, 5, 6 and 7 Water Rationing may be charged with a misdemeanor punishable as an infraction as provided by Section 256 of the Monterey Peninsula Water Management District Law, Statutes of 1981, Chapter 986. Violations carry a maximum penalty of up to $250 for each offense. Each separate day or portion thereof during which any violation occurs or continues without a good-faith effort by the responsible water user to correct the violation, may be deemed to constitute a separate offense, and upon conviction thereof, may be separately punishable.

3. Penalties for Misreporting. In addition to any charge for misrepresenting information as provided in ~~Section 8~~ ***Rule 170,*** D-2, any or all of the following may be further imposed by the General Manager or his agent during Stages 4, 5, 6 and 7 Water Rationing where the violation occurs and continues without a good-faith effort by the responsible water user to correct the violation. Decisions pursuant to this rule are appealable under Rule 70 (Appeals).

a. Intentional misrepresentation may be considered a violation of the water waste provisions and shall subject the water user to a fee for water waste; and/or

b. Intentional misrepresentation may cause the loss of any water bank accrued and shall cause the responsible party to be ineligible to accrue a water bank for a period of sixty (60) months; and/or

c. Intentional misrepresentation may cause the assignment of a reduced water ration that may be as low as a ration for one person for a period of twelve (12) months following implementation of Stages 4, 5, 6 or 7 Water Rationing.

4. Audit. The District may periodically audit the survey data for accuracy. Upon question, the District may request additional evidence of residency to demonstrate the number of permanent residents at that site as defined in Rule 11 (Definitions).

Section Twelve: Amendment of Rule 171 (Water Waste Fees)

District Rule 171 shall be amended by deleting the following provisions shown in strikeout text (~~strikeout~~) and by adding the following provisions set forth in italicized and bold face type (***bold face***).

RULE 171 WATER WASTE FEES

A. Each occurrence of Water Waste or Non-Essential Water Use, as those terms are defined by Rule No. 11 (Definitions), which continues after the water user has had reasonable notice to cease and desist that type of water use shall constitute a flagrant occurrence.

B. A $50 fee ***per day or portion thereof*** shall be assessed for each flagrant occurrence of Water Waste or Non-Essential Water Use. ***The fee shall accumulate daily until the occurrence is corrected.***

C. A $150 fee ***per day or portion thereof*** shall be imposed for each subsequent occurrence (including multiple occurrences) of Water Waste or Non-Essential Water Use which

c. Is a large residential water user.

2. All Landscape Water ~~Auditors~~ ***Budgets*** must be ~~approved by the Monterey Peninsula Water Management District~~ ***prepared by an individual certified by the Irrigation Association***.

3. All water users required to complete ***a*** ~~l~~***L***andscape ***Water*** ~~a~~***A***udits and establish ***a Landscape W***~~w~~ater ***B***~~b~~udgets shall have the option of obtaining a ~~l~~***L***andscape ~~w~~***W***ater ~~a~~***A***udit and ***Landscape Water*** ~~b~~***B***udget from an ~~approved~~ Landscape ~~Water~~ ***Irrigation*** Auditor of their choice at their own expense ***if the auditor is certified by the Irrigation Association.***

4. Landscape ~~Irrigation~~ ***Water*** Audits not conducted by the District and/or Cal-Am shall be reported on a Landscape Water Budget Application. Landscape Water Budget Applications shall be submitted to ~~the District~~ ***Cal-Am*** ~~within 180 days of the implementation of Stage 1 Water Conservation~~. ***Cal-Am shall forward a copy to the District within ten (10) days.*** Landscape ~~w~~***W***ater ~~a~~***A***udits not performed by the District or Cal-Am ~~is~~ ***are*** subject to review and acceptance by the District. ***Landscape Water*** Audits and ***Landscape Water*** ~~b~~***B***udgets rejected by the District may be appealed to the Board of Directors pursuant to Rule 70 (Appeals).

5. Landscape Irrigation Auditors shall arrange on-site visits to compile water records, to review historic use, measure irrigated sites, identify plant materials by general groups, determine irrigation water requirements, ***and*** estimate potential dollar and water savings. Landscape Irrigation Auditors shall also develop system testing strategies, check pressure and flow rates, and conduct water application distribution tests. Data shall be collected to determine irrigation uniformity and efficiency. Soil samples shall be examined to determine soil types and root zone depths. Landscape Irrigation Auditors shall observe system operations, locate irrigation zones, prepare site audit maps and visually identify broken or misaligned equipment. All data from field tests shall be summarized and this information used to generate monthly irrigation base schedules. A copy of the Landscape Water Budget Application shall be provided to the water user. One copy of the Landscape Water Budget Application shall be submitted to ~~the District~~ ***Cal-Am. Cal-Am shall forward a copy to the District within ten (10) days.***

6. Cal-Am shall provide quarterly compliance status notices to each water user required to follow a mandatory ~~l~~***L***andscape ~~w~~***W***ater ~~b~~***B***udget.

C. Modifications To Audited Landscapes. Following significant modification to an existing audited landscape, a new ~~l~~***L***andscape ~~w~~***W***ater ~~a~~***A***udit shall be conducted to establish an appropriate ***Landscape*** ~~w~~***W***ater ~~b~~***B***udget. It shall be the responsibility of the property owner to ensure that a ~~l~~***L***andscape ~~w~~***W***ater ~~a~~***A***udit is conducted within 60 days of any such change and to submit a ***new*** Landscape Water Budget Application to Cal-Am.

D. Reporting and Analysis. Cal-Am shall preserve water use records and budgets for water users subject to this provision of law for such time as the Expanded Water Conservation and Standby Rationing Plan remains effective. Updated ***Landscape*** ~~w~~***W***ater ~~b~~***B***udgets shall supersede previous data. Quarterly, a report shall be compiled by Cal-Am and provided to the District showing the account information and comparing the ~~l~~***L***andscape ~~w~~***W***ater ~~b~~***B***udget with actual consumption. ***During Stages 2 and 3, Cal-Am shall provide the District with monthly consumption reports for all customers with Landscape Water***

providing water to the property where the over-use occurred. Restrictors shall remain in place until conditions are reduced to Stage 2 Water Conservation or a less restrictive stage. All costs for the installation and removal of a flow restrictor shall be charged to the property owner of the site subjected to this action.

4. Fourth Offense. A fourth occurrence of water use in excess of the water ration shall result in fees and charges listed for a third offense and shall result in the installation of a flow restrictor by the system operator in the water meter or water supply providing water to the property where the over-use occurred. Restrictors shall remain in place until conditions are reduced to Stage 3 Water conservation or to a less restrictive stage. All costs for the installation and removal of a flow restrictor shall be charged to the property owner of the site subjected to this action.

B. Flow Restrictor Exemption. Exemptions to the installation of a flow restrictor as a means to enforce the water ration shall occur when there are provable risks to the health, safety and/or welfare of the water user. ~~The following~~ ***An exemption*** shall ***be made for water meters serving three or more multi-family dwelling units by substituting an excess water use charge of $150 times the number of dwelling units located on the meter during each month in which a violation of the water ration occurs. The responsible party shall be liable for payment of all excess water use charges.*** ~~apply in the event a flow restrictor cannot be installed in the water meter or water supply providing water to a property due to health, safety or welfare requirements:~~

~~1. Water Meters Serving Three or More Multi-Family Dwelling Units. The responsible party shall be charged $150 times the number of dwelling units located on the meter during each month in which a violation of the water ration occurs. The responsible party shall be liable for payment of all excess water use charges.~~

C. All notices and assessments of water waste and/or excess water use charges made by a water distribution system operator shall be reported to the District.

Section Fifteen: Amendment of Rule 11 (Definitions)

District Rule 11 shall be amended by deleting the following provisions shown in strikeout text (~~strikeout~~) and by adding the following provisions set forth in italicized and bold face type (***bold face***).

~~Excessive~~ ***Emergency*** Use Rates – "~~Excessive~~ ***Emergency*** Use Rates" shall mean a higher block water rate used by Cal-Am during Stage 3 Water Conservation as a mechanism to discourage excessive water use.

Estimated Applied Water – "Estimated Applied Water" shall mean a projection of the amount of water that should be supplied to a landscape by the irrigation system, as measured by a water meter. For new or existing sites, Estimated Applied Water can be calculated using estimates for plant water use, effective rainfall (if desired), and irrigation system efficiency.

Irrigation Association – "Irrigation Association" shall mean the non-profit entity located at 6540 Arlington Boulevard, Falls Church, VA 22042-6638 USA, its successors and assigns. The Irrigation Association provides technical information related to irrigation services and offers professional training and certification to irrigation technicians in the public and private sectors.

Landscape Irrigation Auditor – "Landscape Irrigation Auditor" shall mean a person ~~approved~~ ***certified*** by the ~~Monterey Peninsula Water Management District~~ ***Irrigation Association*** to perform ~~l~~*L*andscape ~~w~~*W*ater ~~a~~*A*udits and assign ***Landscape*** ~~w~~*W*ater ~~b~~*B*udgets.

phrase thereof, irrespective of the fact that any one or more sections, sub-sections, sentences, clauses, or phrases may be declared invalid.

On motion by Director Pendergrass, and second by Director Edwards, the foregoing ordinance is adopted upon this 21st day of March, 2005, by the following vote:

AYES: Directors Edwards, Foy, Pendergrass and Potter

NAYS: Directors Lehman and Markey

ABSENT: Director Knight

I, David A. Berger, Secretary to the Board of Directors of the Monterey Peninsula Water Management District, hereby certify the foregoing is a full, true and correct copy of an ordinance duly adopted on the 21st day of March, 2005.

Witness my hand and seal of the Board of Directors this 22nd day of March, 2005.

_____

David A. Berger, Secretary to the Board

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