

# **California Public Utilities Commission**

## **WATER ACTION PLAN**

9 November 2005

### **Summary**

This plan identifies the policy objectives that will guide the California Public Utilities Commission (CPUC) in regulating the investor-owned water utilities and highlights the actions that the Commission anticipates or will consider taking in order to implement these objectives. In light of increasing statewide concerns about water quality and supply, the Commission will explore innovative solutions to water problems and keep pace with newer approaches it is implementing in the energy and telecommunications sectors as well as strategies being used by water agencies and entities not subject to Commission jurisdiction.<sup>1</sup>

The CPUC is responsible for ensuring that the utilities deliver clean, safe, and reliable water to their customers at reasonable rates.<sup>2</sup> There are approximately 140 companies under CPUC jurisdiction providing potable and irrigation water service to about 20%, or more than 6 million, residents of California. Total annual revenues for CPUC-regulated water utilities in California are nearly \$1 billion. Water quality and water supply issues are governed by various federal and state agencies, and the CPUC works collaboratively and closely with them.<sup>3</sup>

The Commission's objectives in regulating water utilities rest on four key principles:

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<sup>1</sup> An overview of current CPUC next steps and short term water policy activities is shown in Appendix B.

<sup>2</sup> The investor-owned water utilities that the CPUC regulates are corporations or limited liability companies that provide water to the public for remuneration as a business, and are classified according to size as A, B, C, or D. Class A: 10,001+ customers; Class B: 2,001-10,000; Class C: 501-2,000; Class D: 1-500.

<sup>3</sup> These agencies are the Department of Health Services, the Department of Water Resources, the State Water Regional Quality Control Board, the California Environmental Protection Agency, and wholesale water agencies such as the Metropolitan Water District.

### **Four Key Water Principles**

- **Safe, high quality water,**
- **Highly reliable water supplies,**
- **Efficient use of water, and**
- **Reasonable rates and viable utilities.**

Building off these principles, we have developed six objectives, each with a series of actions that advance them.

### **Water Action Plan Objectives**

- 1. Maintain Highest Standards of Water Quality**
- 2. Strengthen Water Conservation Programs to a Level Comparable to those of Energy Utilities**
- 3. Promote Water Infrastructure Investment**
- 4. Assist Low Income Ratepayers**
- 5. Streamline CPUC Regulatory Decision-making**
- 6. Set Rates that Balance Investment, Conservation, and Affordability**

## **Water Action Plan Objectives**

### **1. Maintain Highest Standards of Water Quality**

Water quality is vital to the health of consumers. Delivering safe water requires a reliable infrastructure. We will bolster our current collaborative relationship with the enforcers of water quality standards, the Department of Health Services and the Federal Environmental Protection Agency, so that problems are identified and acted upon as quickly as possible.

### **2. Strengthen Water Conservation Programs to a Level Comparable to those of Energy Utilities**

Water conservation is critical in California to extend limited resources as far as possible to allow for future growth. Indeed, water conservation is the least expensive source of water. The Commission will use existing tools to strengthen utility conservation programs, and will provide the necessary direction to do so by initiating formal proceedings where appropriate. Emphasis on water conservation mirrors the Commission's similar high priority for conservation in the energy sector.

### **3. Promote Water Infrastructure Investment**

The water infrastructure in California needs significant improvement. We will provide financial incentives and direction to encourage investment in infrastructure needed to improve water quality.

### **4. Assist Low Income Ratepayers**

Low income customers often struggle with payments for basic monthly water service. Similar to our practices in the telecommunications and energy industries, we will develop options to increase affordability of water service for these customers as well as provide specific emphasis on water conservation programs for low income water customers.

### **5. Streamline CPUC Regulatory Decision-making**

The CPUC's decision-making process will be streamlined to the benefit of both the utilities and their ratepayers. We will seek public input as we develop new procedures to ensure meaningful consumer input into our decision-making is maintained.

### **6. Set Rates Balancing Investment, Conservation, and Affordability**

The CPUC will ensure that the established rates will provide for recovery of reasonable and prudently incurred costs and a fair and equitable return to ratepayers. We will develop rates and ratemaking mechanisms to further the above goals of affordability, conservation, and investment in necessary infrastructure

## **Actions to Support Water Plan Objectives**

### **Objective: Maintain Highest Standards of Water Quality**

#### **1. Strengthen inter-agency relations with Department of Health Services.**

The CPUC currently supports water quality monitoring in various ways. For example, the CPUC works collaboratively with the Department of Health Services to ensure prompt identification of problem areas. Under the terms of the *Memorandum of Understanding between the Department of Health Services and the Public Utilities Commission On Maintaining Safe and Reliable Water Supplies for Regulated Water Companies in California*, the agencies exchange information on water quality and Commission actions on rates and facilities.<sup>4</sup>

The CPUC meets annually with the Department of Health Services to review and update this Memorandum of Understanding as necessary. The CPUC will examine whether opening an

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<sup>4</sup> The MOU was signed October 25, 1996 by James Stratton, Deputy Director Prevention Service, DHS and on November 21, 1996 Wesley M. Franklin, Executive Director, CPUC.

**Objective: Maintain Highest Standards of Water Quality (...continued)**

Order to Show Cause when a water company cannot or will not comply with Department of Health Services orders will assist in enforcement of DHS orders. This enforcement action could result in the CPUC going to Superior Court to pursue having a receiver appointed to run the water system and to follow Department of Health Services mandates.

**2. Strengthen the CPUC's role in water quality regulations and monitoring procedures.**

Decision (D.) 00-11-014 directed the CPUC's Water Division to prepare a draft Order Instituting Rulemaking (OIR) to develop water quality regulations and monitoring procedures and other modifications to General Order 103 as required by the Hartwell Decision.<sup>5</sup> This proposed OIR has not yet been issued. This OIR will determine the proper level of CPUC involvement in its water quality regulatory function with respect to the utilities and the California Department of Health Services. The CPUC's jurisdiction must be appropriate and complementary to the Department of Health Services' function as the primary agency for water quality in California.

**3. Require water utilities to provide water quality reporting to the CPUC in their General Rate Case Filings.**

Consistent with the CPUC's objective for ensuring safe water supplies, water utilities will be required to document water quality as part of their General Rate Case (GRC) filings and highlight any areas where water quality fails to meet the applicable standards that are currently in place or would be in effect during the rate case cycle. The report will also be required to include proposals to resolve any water quality problems and identification of the investment or other costs required to rectify the problem. The water utility will be required to attach to its GRC any Department of Health Services reports filed from the most recent year.

**4. Develop alternative funding mechanisms to address water quality infrastructure investments for smaller water companies.**

The standard upgrades to Class B, C, and D water utilities' infrastructure needed to meet water quality standards are often neglected by the water companies due to financial hardship. Costs of compliance with the Safe Drinking Water Act and related water quality standards have significantly contributed to the cost of upgrading infrastructure. Many Class B, C, and D water companies are in such precarious financial condition that basic infrastructure maintenance is infeasible. These companies also have such a small customer base that additional investment may not be affordable. The Commission will evaluate alternative funding programs for enabling these cash-limited utilities to fulfill the state water quality requirements.

In particular CPUC staff will examine the practicality of a program that would provide funding for ensuring clean and affordable water service in high cost areas served by Class B, C, and D

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<sup>5</sup> In February, 2002, the Supreme Court of California decided in the Hartwell Decision that the CPUC has regulatory authority to promulgate water quality standards applicable to the water utilities it regulates. Hartwell Corporation et al. v. The Superior Court of Ventura County, 02 C.D.O.S. 1064, (2002).

**Objective: Maintain Highest Standards of Water Quality (...continued)**

water utilities. This program would provide funding needed to bridge any gap that would exist between the revenues generated by reasonable rates and the costs of providing reliable, safe, and clean water. Furthermore, Class B, C, and D water utilities will be urged to avail themselves of any applicable grants and Safe Drinking Water State Revolving Fund loans to be used for their infrastructure needs.

**5. Provide incentives for the acquisition or the operation of small private water utilities by larger private or municipal water utilities.**

Smaller water companies often do not have the resources or expertise to operate in full compliance with increasingly stringent and complex water quality regulations. Many small water companies are too small to be viable in the long-term, raising questions as to whether they will be able to continue to provide clean and reliable water in the future. The Department of Health Services now requires Class A utilities to report on an annual basis which smaller utilities (i.e. Class B, C, & D) they might consider purchasing. Additionally, the Public Water System Investment and Consolidation Act of 1997 added Sections 2718, 2719, and 2720 to the Public Utilities Code to provide incentives to large utilities to take over smaller systems.<sup>6</sup> The CPUC will consider offering incentives to promote company acquisitions, including surcharges for related capital improvements, and an adjustment to the allowed return on equity.

**Objective: Strengthen Water Conservation Programs to a Level Comparable to those of Energy Utilities**

**1. Promote metered water service to encourage conservation.**

One major conservation incentive is the elimination of flat-rate (i.e., un-metered) water service. Metering water is essential to send a clear price signal to the customer and give the customer a financial incentive to conserve. Tiered metering is a common practice among energy utilities under CPUC jurisdiction, and by public non-regulated energy utilities in California. Section 781 of the Public Utilities Code requires a showing that the metering will be cost-effective, results in a significant reduction in water use, and will not impose unreasonable costs. The CPUC will work to ensure that such a showing is made as often as possible in future water cases, and will then require metered water service and the use of tiered rates.

**2. Educate water industry stakeholders regarding policies and practices which reduce water and energy consumption.**

Education is a vital component of conservation efforts. For decades, energy ratepayers have funded extensive education efforts by energy utilities, which have been critical in California's

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<sup>6</sup> In "Public Water System Investment and Consolidation Act of 1997", the Legislature recognized: "Public water systems are faced with the need to replace or upgrade the public water system infrastructure to meet increasingly stringent state and federal safe drinking water laws and regulations", with the scale economies of larger water utilities aiding in raising required capital.

**Objective: Strengthen Water Conservation Programs to a Level Comparable to those of Energy Utilities (...continued)**

energy efficiency efforts. A similar approach is needed for water conservation. A “Water Conservation Summit” with, for example, the Department of Health Services and other interested state agencies and knowledgeable water conservation experts, could be a useful forum to identify and highlight successful conservation policies and practices for public and investor-owned water utilities. The CPUC’s own web site will also be expanded to include water conservation information.

**3. Direct participation by all California Class A and B water utilities in the Urban Water Conservation Council and encourage implementation of the Council’s Best Conservation Management Practices.**

Statewide urban water conservation is coordinated by the California Urban Water Conservation Council.<sup>7</sup> This organization’s membership consists of three groups: water suppliers, public advocacy organizations, and other interested groups. As part of an overall program of promoting conservation, the Commission will encourage development and implementation of best conservation management practices as promoted by the California Urban Water Conservation Council<sup>8</sup> and will direct all Class A and B Water Utilities to participate in the Council. In order to facilitate the participation, water utilities will be allowed to seek recovery of expenses related to participation in this effort in their General Rate Case filings.

Further, we will encourage smaller (Class C & D) to implement those best practices that make sense for a smaller provider to implement and will seek the assistance of the larger water providers and the California Water Association in disseminating these conservation tools to the smaller water companies.

**4. Encourage increasing block rates where feasible to promote greater conservation.**

Increasing block rates, in which rates increase with usage, provide a financial incentive for customers to reduce water consumption. The figure below shows the relative use of alternative rate design programs by a sample of California water utilities.<sup>9</sup> There is a significant growth in the use of increasing block rates in the early 1990’s, in direct response to the severe drought. Approximately half the California water ratepayers in 2003 had increasing block rates.<sup>10</sup> However, among CPUC-regulated water utilities, increasing block rates are virtually non-existent. Thus, there is significant opportunity to implement this approach to rate design. Before instituting increasing block rates, however, the Commission will carefully consider the impact on

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<sup>7</sup> The California Urban Water Conservation Council (<http://www.cuwcc.org/home.html>) was created to increase efficient water use statewide through partnerships among urban water agencies, public interest organizations, and private entities. The Council's goal is to integrate urban water conservation Best Management Practices into the planning and management of California's water resources.

<sup>8</sup> See Appendix A for the list of the Council’s Best Management Practices, and a list of reasons why CPUC-regulated Class A and B water utilities should follow these Best Management Practices.

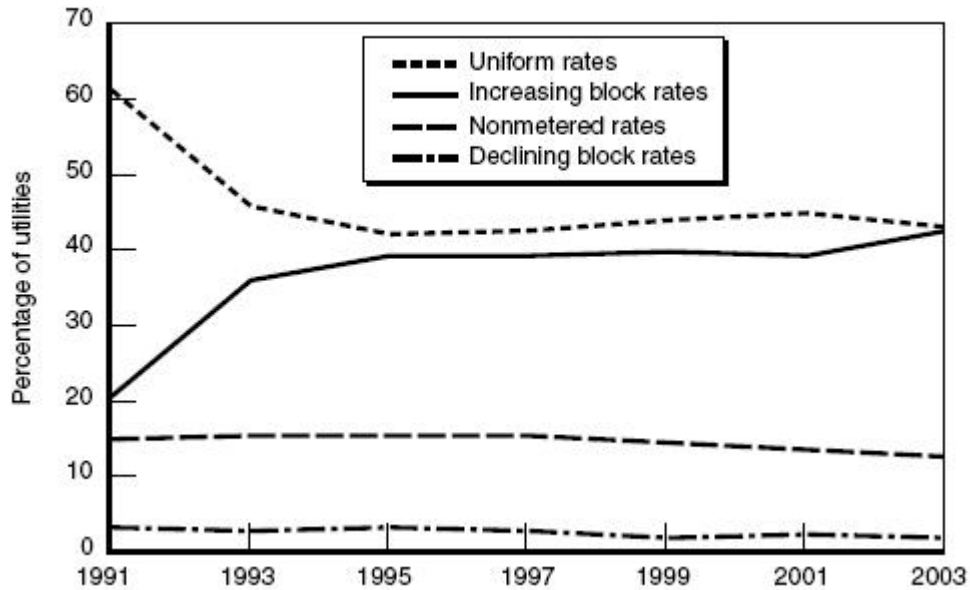
<sup>9</sup> Ellen Hanak, Public Policy Institute of California, “Water for Growth: California’s New Frontier”, 2005.

<sup>10</sup> Ibid.

**Objective: Strengthen Water Conservation Programs to a Level Comparable to those of Energy Utilities (...continued)**

low income customers and may develop specific low income water rates, similar to its approach for low income energy ratepayers.

**Water Utility Rate Structures in California, 1991-2003**



Note: The chart reports the share of utilities with each rate structure (total = 100%), using data from 214 utilities present in the survey in all years.<sup>11</sup>

**5. Remove current financial disincentives to water conservation.**

Because water utilities recover their costs through sales, there is a disincentive associated with demand side management: a successful campaign to reduce water use leads to less revenue and less profit. The Commission will consider de-coupling water utility sales from earnings (e.g., employ per-customer revenue caps) in order to eliminate current disincentives associated with conservation.

<sup>11</sup> Ellen Hanak’s calculations using survey data from Black and Veatch, “California Water Charge Survey”, Management Consulting Division, Irvine, CA, 1991, 1993, 1995, 1997, 1999, 2001, 2003. Uniform rates charge the same price regardless of usage level; increasing block rates charge a higher price for higher usage levels; non-metered rates are the same price regardless of usage level, and usage is not metered; declining block rates charge a lower price for higher usage levels.

**Objective: Strengthen Water Conservation Programs to a Level Comparable to those of Energy Utilities (...continued)**

**6. Establish utility financial incentives for greater conservation.**

In order to provide utility management with the incentive to encourage conservation, the Commission will consider allowing:

1. Financial rewards for utility management when conservation goals are met, and financial penalties when conservation goals are not met.
2. A rate-of-return on demand side investments.

**7. Consider energy usage as an important outcome of all water policy decisions and work toward a 10% reduction in energy consumption by the utilities over the next three years.**

California water and wastewater utilities (both publicly and privately owned) consume substantial amounts of energy. Customer consumption and use of water constitutes about 19 percent of all electricity, and about 32 percent of all natural gas consumed in California.<sup>12</sup> The table below summarizes the water-related energy consumption data (excluding incomplete data on diesel fuel consumption, which nonetheless must also be subject to conservation).

**2001 Water-Related Energy Use in California**

	<b>Electricity (GWh)</b>	<b>Natural Gas (Mill. Therms)</b>
<b>Water Supply and Treatment</b>		
Urban	7,554	19
Agricultural	3,188	
<b>End Uses</b>		
Agricultural	7,372	18
Residential	27,887	4,220
Commercial		
Industrial		
<b>Wastewater Treatment</b>	2,012	27
<b>TOTAL</b>	48,012	4,284
<b>2001 Consumption</b>	250,494	13,571
<b>Percent of Statewide Energy Use</b>	19%	32%

Source: California Energy Commission, "Integrated Energy Policy Report", September, 2005, p. 121.

There are many supply-side and demand-side policies and technologies which can help reduce this substantial energy consumption. The U.S. Environmental Protection Agency's ENERGY STAR® program estimates that 10 percent energy savings can be achieved in the water and wastewater industry. The American Council for an Energy-Efficient Economy recommends that

<sup>12</sup> <http://www.energy.ca.gov/2005publications/CEC-100-2005-007/CEC-100-2005-007-CTD.PDF>



**Objective: Strengthen Water Conservation Programs to a Level Comparable to those of Energy Utilities (...continued)**

regulators ensure energy efficiency is recognized and rewarded, and that all stakeholders be educated on the importance of improving the energy efficiency of water and wastewater facilities.<sup>13</sup>

The CPUC will identify and assess options for energy efficiency strategies for water utilities to reduce energy use associated with water pumping, purification systems, and other water processes such as desalinization. Additional policies which can contribute to increased energy efficiency include addressing sources of energy waste, such as system leaks, poorly maintained equipment, defective meters, unused machines left idling, and improperly operated systems.<sup>14</sup>

**8. Collaborate with the California EPA to reduce California greenhouse gas (GHG) emissions.**

The CPUC is actively working with California EPA to implement programs that will reduce GHG emissions, consistent with the Governor’s Executive Order establishing specific emission reduction goals for California.<sup>15</sup>

The CPUC recognizes that water supply planning should take into account the likely effects of global warming. Reduced snowpack as a result of rising temperatures is an expected consequence of global warming, possibly resulting in greater water runoff and less runoff percolating into the groundwater. The Department of Water Resources, while noting large variances in the estimates of the impact of global warming on future water supply, identifies some highly likely results. One of these highly likely results is rising temperatures, affecting the amount and extent of winter snowpack in the mountains, but the range of predictions for the amount of temperature rise is quite wide. However, the Department of Water Resources concludes that further studies are required, including better hydrologic monitoring to more accurately assess the trends and changes underway.<sup>16</sup>

Just as we have done on the energy side, we will identify actions that our water utilities can take to reduce GHG emissions. The most obvious, of course is to reduce consumption of electricity, natural gas, and vehicle fuels. We will also encourage California’s largest water utilities to join the California Climate Action Registry, a voluntary greenhouse gas registry to promote early actions to reduce greenhouse gas emissions.<sup>17</sup>

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<sup>13</sup> ACEEE, “Roadmap to Energy in the Water and Wastewater Industry”, September, 2005.

<sup>14</sup> Alliance to Save Energy, <http://www.watergy.org/supplieside/practices/practices.html>.

<sup>15</sup> On June 1, 2005, The Governor signed Executive Order S-3-05 which established GHG targets. For more information, see: <http://www.climatechange.ca.gov/>.

<sup>16</sup> Maurice Roos, Department of Water Resources, “Accounting for Climate Change”, California Water Plan Update, 2005 Volume 4 – Reference Guide, Public Review Draft, p.12.

<sup>17</sup> For more information, see <http://www.climateregistry.org/>.

## **Objective: Promote Water Infrastructure Investment**

### **1. Allow utilities' CPUC-filed "Water Management Program" to serve as a basis for approval of needed infrastructure.**

By addressing water supply availability in each General Rate Case the CPUC assures that adequate water is available in the near term.<sup>18</sup> However, the General Rate Case filing often does not adequately address potential long-term projects, and associated costs.

The CPUC requires each Class A water utility to file a Water Management Program with each General Rate Case filing. The Water Management Program forecasts supplies and demand side management impacts out to a 20-year horizon.<sup>19</sup> The CPUC will seek to use these Water Management Programs as a basis for pre-approval of major water supply projects that require a long term commitment, i.e., longer than the 3-year General Rate Case time frame.

Included within the Water Management Program should be a long-term procurement plan, including infrastructure review, to enable more efficient financial planning for future investment contingencies. As part of the long term procurement section, alternative financing techniques (e.g., loans, subsidies, project financing) could be evaluated. The long term procurement plan should include planning for major investments required to upgrade or replace existing water utility infrastructure and installation of water meters capable of measuring water use by individual users.

There may be circumstances in which a specific project needs to be initiated or adopted prior to the commencement of the next 5-year planning cycle. In these situations, the Commission will allow the utility to file a separate application to address the specific project, showing compliance with its current long-term procurement plan, instead of waiting for the next cycle of planning.

### **2. Consider authorization of a Distribution System Improvement Charge to promote infrastructure improvements.**

To provide further incentive for water utilities to finance capital improvements, we will consider creating a Distribution System Improvement Charge, which will isolate this revenue stream from other uses. This clearly identified and separate rate component will enable water utilities to more efficiently dedicate sufficient revenue for infrastructure improvements. The Distribution System Improvement Charge could be used to fund infrastructure replacement projects (e.g., compliance with the Safe Drinking Water Act; main and valve replacements) outside of general rate proceedings with review by the Commission.

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<sup>18</sup> See Standard Practice U-22-W Determination of Water Supply Requirements of Water Systems. A "Standard Practice" can be generally defined as a publicly-issued guideline by the CPUC which identifies any standards and other requirements to which the relevant utilities under the CPUC jurisdiction will be held accountable and responsible.

<sup>19</sup> CPUC D. 90-08-055 requires all Class A water utilities to submit, in each General Rate Case, a Water Management Program with a 20-year horizon. The Department of Water Resources requires water utilities to file a 5-year Water Management Plan.

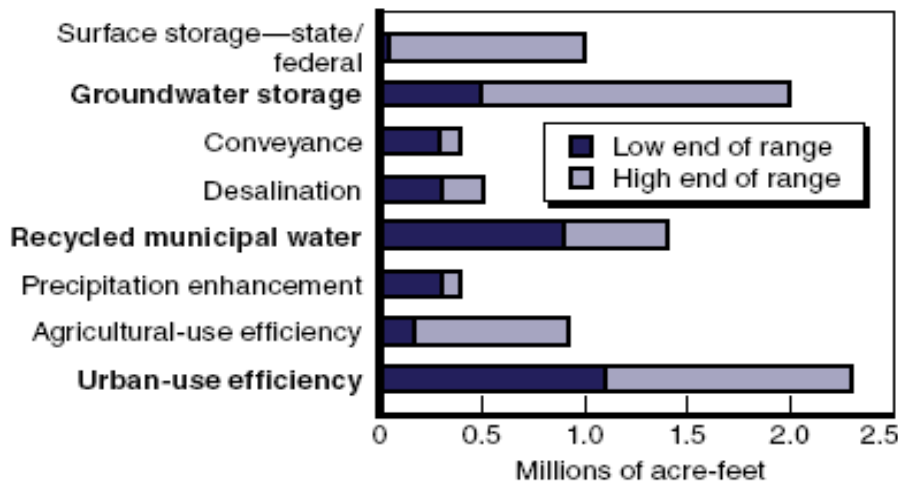
**Objective: Promote Water Infrastructure Investment (...continued)**

**3. Work with other state and local agencies toward the common goal of maintaining reliable water supplies.**

The CPUC can maximize the effectiveness of state water supply planning by coordinating efforts with other state agencies having an impact on water supplies, including the Department of Health Services, Department of Water Resources, State Water Regional Quality Board, and Cal-Environmental Protection Agency. Effective policies for maintaining reliable water supplies can also be learned by reviewing the efforts of municipal water utilities such as the Metropolitan Water District of Southern California.

The figure below from the Department of Water Resources illustrates that water supply could be increased significantly by greater groundwater storage, augmenting municipal wastewater recycling, and improved efficiencies in urban water use.

**Annual Production Potential from New Water Supply Sources and Conservation, 2000-2030**



Source: Department of Water Resources, “California Water Plan Update,” Bulletin 160-05, Public Review Draft, April, 2005.

One public agency which has substantial experience with effective use of existing water supply, particularly utilization of groundwater storage and recycled municipal water, is the Metropolitan Water District of Southern California.<sup>20</sup> The Metropolitan Water District in 2005 expects to obtain about 355,000 acre-feet of water from recycling and groundwater recovery, and plans to

<sup>20</sup> Metropolitan Water District’s service area, located in southern California, includes Los Angeles and San Diego, and has about 18.1 million people, or roughly half of California’s total population. Metropolitan Water District is solely a water wholesaler, providing treated and untreated water directly to its 26 member agencies, which deliver to their customers a combination of local groundwater, local surface water, recycled water, and imported water purchased from Metropolitan Water District.

**Objective: Promote Water Infrastructure Investment (...continued)**

achieve from 500,000 to 755,000 acre-feet by 2020. Currently, more than half of recycled water occurring in California comes from the Metropolitan Water District service area, and it is the fastest growing local supply source. Uses for recycled Metropolitan Water District water include landscape irrigation, commercial and industrial use, seawater intrusion barriers, and groundwater recharge applications.<sup>21</sup>

Useful information could be obtained by reviewing the lessons learned by the Metropolitan Water District in utilizing groundwater storage and recycled municipal water, and other water management practices.<sup>22</sup> The CPUC can encourage investor-owned water utilities in California to maintain reliable water supplies through a greater exchange of information and ideas with other state agencies impacting water supply, and by coordinating related policies for the best possible synergies.

**4. Provide timely compensation for water pollution clean-up costs that are due water utilities.**

Currently there is often a delay in providing water utilities compensation for pollution of their water supply by other companies or individuals. One means for addressing this problem is for the CPUC to permit automatic balancing account treatment for any pollution costs. This immediate recovery would avoid the need for the CPUC to adopt a formal resolution authorizing such treatment and would provide the utility with financial support for identifying and prosecuting polluters. The CPUC will authorize utilities to use the balancing account funds for litigation and clean-up costs, subject to adequate CPUC oversight.

**Objective: Assist Low Income Ratepayers**

**1. Develop a low-income rate assistance program for water customers taking service from CPUC-regulated water utilities.**

The CPUC will give priority to developing a low-income rate assistance program for customers who qualify for this service. The CPUC offers several programs to assist low-income ratepayers, including the Universal Lifeline Telephone Service fund for telecommunications ratepayers, and the California Alternative Rates for Energy and Low-Income Energy Efficiency Program for electric ratepayers. Public Utilities Code, in particular Section 739.8, requires that the Commission consider and implement rate assistance programs for low-income ratepayers, including water ratepayers.<sup>23</sup> The Public Utilities Code also requires that potential impact on

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<sup>21</sup> The Metropolitan Water District of Southern California, “Regional Urban Water Management Plan”, September, 2005, pp. 94-96.

<sup>22</sup> See Appendix A for a list of the California Urban Water Conservation Best Management Practices, and Metropolitan Water District’s experience with deploying some of these Practices.

<sup>23</sup> § 739.8 (a) Access to an adequate supply of healthful water is a basic necessity of human life, and shall be made available to all residents of California at an affordable cost.

(b) The commission shall consider and may implement programs to provide rate relief for low-income ratepayers.

**Objective: Assist Low Income Ratepayers (...continued)**

conservation be considered when the rate assistance program is developed. Currently, the CPUC has only required selected water utilities to offer water utility rate assistance programs.<sup>24</sup>

Based on 2000 data, 14.2%<sup>25</sup> of all California residents are at or below the federally-established poverty levels while 28.7% are at or below 174% of the federal poverty levels.<sup>26</sup> Twenty percent of the United States population has difficulty affording at least one basic need (payment of utility bill, payment of mortgage/rent, visit doctor/dentist, eviction, and purchase of food) and 11% have difficulty affording at least two of those basic needs.<sup>27</sup> The following table shows the federal guidelines for poverty levels by family size.

U.S. Department of Health and Human Services Poverty Guidelines – 48 Contiguous States and D.C. 2005	
Number of Persons in Family Unit	Dollar Poverty Level
1	\$9,570
2	\$12,830
3	\$16,090
4	\$19,350
5	\$22,610
6	\$25,870
7	\$29,130
8	\$32,390
Source: <a href="http://aspe.hhs.gov/poverty/05poverty.shtml">http://aspe.hhs.gov/poverty/05poverty.shtml</a>	

(c) The commission shall consider and may implement programs to assist low-income ratepayers in order to provide appropriate incentives and capabilities to achieve water conservation goals.

(d) In establishing the feasibility of rate relief and conservation incentives for low-income ratepayers, the commission may take into account variations in water needs caused by geography, climate and the ability of communities to support these programs.

<sup>24</sup> CPUC D.96-01-005 & D.00-03-053 (California American Water), D.02-01-034 (Southern California Water), D.04-08-054 (San Jose Water), and D.05-05-015 (San Gabriel Valley Water). The most recent case to address these issues was resolved by the Commission in D.05-05-015 (San Gabriel Valley Water A.03-04-025). In this case, the Commission ordered that San Gabriel shall institute a rate assistance program for qualifying low-income customers (50% discount to service charge). The CPUC determined that PU Code 739.8 requires that only customers of the utility be provided with a rate assistance program, and that individuals who are not customers of the water utility, such as those that live in multi-family housing, are not customers and therefore are not covered by PU Code 739.8.

<sup>25</sup> Poverty: 1999 Census 2000 Brief, Issues May 2003, US Census Bureau.

<sup>26</sup> Based on 2000 U.S. Census data. The Class A results range from 10.2% to 39.8%, while the Class B, C, and D results range from a 0% to 78.3%.

<sup>27</sup> Extended Measures of Well-Being: Meeting Basic Needs, Household Economic Studies, US Census Bureau, June 1999.

**Objective: Assist Low Income Ratepayers (...continued)**

The table below illustrates the wide variability in the average percentage of Class A water utility ratepayers that are at or below the federal poverty level as well as those at 174% of the federal poverty level.<sup>28</sup> Of the customers at or below 174% of federal poverty level, these percentages range from a low of just over 10% to a high of almost 40%. This wide variability supports the need for a Low Income Assistance program at a state level, as any utility-specific program could be extremely burdensome on the remaining ratepayers that do not qualify for low-income assistance in areas where there is a large proportion of ratepayers that do qualify for assistance. It should be noted that the percentage of Class B, C, and D water utility ratepayers that are at or below 174% of the federal poverty level range from 0% to 78.3%.

**Selected Poverty Data For Class A Water Utilities**

Company Name	Customers at or below 99% of the Poverty Level	Customers at or below 174% of the Poverty Level
California American Water	21.2%	39.8%
California Water Service	15.3%	31.1%
Great Oaks Water	6.2%	12.5%
Park Water	21.8%	32.3%
San Gabriel Valley Water	15.6%	31.7%
San Jose Water	5.1%	10.2%
Southern California Water	12.7%	25.8%
Suburban Water	11.1%	24.4%
Valencia Water	2.9%	12.9%
<b>Weighted Average</b>	<b>13.6%</b>	<b>27.0%</b>

Source: 2000 US Census Data and Company Data Request Responses

Currently, proposed low-income rate assistance programs for Class A water utilities are addressed on a case-by-case basis as part of a General Rate Case. Many issues, such as the preservation of conservation, reaching low-income individuals in multi-family housing, alternative assistance programs besides rate assistance (budget billing and leak repair assistance), working with community organizations, and affordability to the remaining utility customers, are examined in these cases.

<sup>28</sup> One of the qualification criteria used for a ratepayer to participate in a low income rate assistance program is to have income of 175% of the poverty rate or less. The closest Census category is 174%.

**Objective: Assist Low Income Ratepayers (...continued)**

**2. Implement a pooling mechanism as well as a standard low-income rate assistance program based on the results of individual company programs.**

The Commission currently considers low-income rate assistance programs on a case-by-case basis. The CPUC will review lessons learned from these individual programs and initiate a proceeding to develop a feasible and effective standard low income rate assistance program for all water utilities, including establishment of a pooling program to support it. In a pooling program revenues are collected from all regulated water utilities to support their respective low-income rate assistance programs. The pooling program would allow each company to make a claim for the costs it incurred in the operation of its low-income program. This is similar to the Universal Service Telephone Lifeline fund that collects funding from all consumers of all intrastate telecommunications carriers to support discounted service available to low-income consumers. In this fashion, no single provider's customers bear an unequal burden in supporting the Commission's low-income programs.

The CPUC will also evaluate the possibility of authorizing bill payment programs for assisting low income ratepayers, including an averaging of payments over a specified time period.

**3. Examine policy and legislative changes needed to address low-income consumers' dwelling in multi-family housing.**

Current language limits application of the water low-income rate assistance program to ratepayers of the utility. That is, low-income individuals in multi-family housing that receive their water service from a regulated utility but do not receive the bill (the bill goes to the landlord) are not covered by the existing code. The Commission will examine changes for the Legislature to consider that would revise the existing code that addresses low-income rate assistance for water utilities (Public Utilities Code Section 739.8).

**Objective: Streamline CPUC Regulatory Decision-making**

**1. Adopt incentive regulation where feasible and effective.**

The Commission has used incentive regulation for telecommunications, gas, and electric utilities. The Commission will seek to also adopt incentive regulation for water utilities it regulates to improve water utility operational and financial results, promote conservation, and reduce ratepayer costs. The Commission will establish incentive regulation for water utilities in General Rate Cases where feasible and effective.

**2. Streamline the existing process for review of cost of service and rate of return for all classes of water utilities.**

The Commission has considered several opportunities to streamline the existing regulatory processes. In D.92-03-093, this Commission determined that Class B utilities should be eligible for informal General Rate Cases, in addition to the Class C and Class D utilities. Informal

**Objective: Streamline CPUC Regulatory Decision-making (...continued)**

General Rate Cases by Advice Letter do not involve hearings or a formal Commission decision, but the CPUC staff from the Water Division still performs a thorough investigation and presents recommendations to the Commission. Rates are approved by a Commission resolution.

Currently, to lighten the burden for small water companies and minimize rate case expenses recovered in rates, the Commission allows rates for small water companies to increase rates periodically using an inflation factor (Consumer Price Index) in lieu of a general rate case.

To further expedite the process, the Commission will consider standardized and streamlined regulatory review for small water utilities (Class C & D) in lieu of a typical rate case.

Further, the Commission will consider on a case-by-case basis changes to the standard rate case plan that have the effect of streamlining the process and allow for the proceeding to move forward in a more expeditious manner.

**3. Acquisition of small private water utilities by larger private or municipal water utilities may reduce regulatory burden.**

Consolidation of operations is expected to result in economies of scale, improved access to capital, and improved financial condition. However, another important benefit of such consolidation is to relieve the burden of regulation from these smaller and less sophisticated providers. Dealing with regulation and policy issues can be an expensive and time consuming activity, one that is particularly burdensome to small companies. The Department of Health Services now requires Class A utilities to report on an annual basis which smaller utilities (i.e. Class B, C, & D) they might consider purchasing. Additionally, the Public Water System Investment and Consolidation Act of 1997 added Sections 2718, 2719, and 2720 to the Public Utilities Code to provide incentives to large utilities to take over smaller systems.<sup>29</sup> The CPUC will consider offering incentives, including surcharges for related capital improvements, and an adjustment to the allowed Return on Equity.

**4. Consider elimination of Reserve Accounts for purchased water, purchased power, and pump tax.**

The Commission has allowed tracking and recovery of purchased water, purchased power, and pump tax expenses since the early 1980s. Currently utilities' earnings are reviewed to determine whether they are over-earning their allowed return in any specific district. If they are over-earning in a district, the recovery for that district is lowered, without consideration of the fact that the utility may be failing to earn the allowed return in other districts or in that district in other years. Eliminating these accounts for the Class A utilities would eliminate over 30 advice

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<sup>29</sup> In "Public Water System Investment and Consolidation Act of 1997", the Legislature recognized: "Public water systems are faced with the need to replace or upgrade the public water system infrastructure to meet increasingly stringent state and federal safe drinking water laws and regulations", with the scale economies of larger water utilities aiding in raising required capital.



**Objective: Streamline CPUC Regulatory Decision-making (...continued)**

letter filings per year. There is currently a Petition for Modification outstanding on this issue, and the Commission will address this issue in that venue.

**5. Evaluate efficiencies of consolidating rate cases.**

The Commission will examine the feasibility of consolidating districts in those instances where the districts are geographically adjacent and have similar rates. If two combined districts have similar costs, the Commission will seek to allow the districts to simultaneously file rate cases, resulting in more efficient and timely regulation, with accompanying cost savings.

**6. Use Alternative Dispute Resolution in place of more time-consuming regulatory procedures wherever a fair and efficient regulatory result can be accomplished.**

Regulatory processes and proceedings can sometimes require much more time than is justified. In some cases, substantial resources could be saved, and a more timely yet just as effective resolution could be achieved, with Alternative Dispute Resolution (ADR). The Commission will expand the use of ADR for its regulated water utility cases.

Additionally, the Commission may encourage parties to seek negotiated resolution of issues as early as possible in a case, including prior to the filing of prepared testimony, to lower the burden of regulation on all participants.

**Objective: Set Rates that Balance Investment, Conservation, and Affordability**

**1. Review utility rate case revenue requirements from the perspective of long-term investment and conservation, as well as shorter-term rate impacts.**

Currently, the Commission focuses more on short-term rate impacts and far less on the longer term benefits of infrastructure investment and water conservation. The Commission will seek a more balanced approach that takes into account investment and conservation benefits, as well as rate impacts. The CPUC will review the utility rate case revenue requirements of water utilities in General Rate Case proceedings in light of their long-term water supply needs. This critical review will ensure that the revenue requirements being requested are both justifiable and adequate in terms of long-term cost minimization efforts, investment in conservation, and new water supplies required to meet consumers' needs.

**2. Develop policies to subsidize high cost areas, either through some variation of a “High-Cost” Fund or through consolidation of districts or rates.**

There can be a significant difference in the cost of providing safe, reliable and adequate water in different geographic areas. In many areas charging the full cost of providing water service would result in either rates that are unaffordable to many customers in the region or in rate shock where the price increases by a large amount. In the past the Commission has implicitly

**Objective: Set Rates that Balance Investment, Conservation, and Affordability (...continued)**

subsidized customers in higher cost areas by keeping their rates artificially low while raising the rates to customers in lower cost areas. This practice is called “regionalization” or “consolidation of rates.” Such cross subsidization is possible, though perhaps not desirable, for customers of large, multi-district water companies. But cross subsidization is not a mechanism that can be used to address higher cost small water systems because spreading the costs over so few customers where the costs to serve an area are so high would result in excessive rates.

The Commission will examine the development of a high cost mechanism for small (Class C and D) companies and small districts of larger (Class A and B) companies, that will enable them to

draw from the fund to keep basic rates manageable or to minimize rate shock. The CPUC has used a similar approach for telecommunication ratepayers, via the so-called High Cost Fund-A for small local telecommunications companies and the High Cost Fund-B for larger local telephone providers.

Such rate reduction mechanisms result in prices that do not reflect the true costs of providing service in a particular district. Therefore the Commission will determine whether and when such cross-subsidization between customers is justified, and how explicit that subsidy is. Generally, the cross-subsidization can be justified when the benefits (lower rates for customers in high cost areas) exceed the costs (higher rates for customers in lower cost areas; less-efficient allocation of water resources). Any subsidies will be explicit, so that customers are aware of the Commission’s policy and the impact of that policy on rates.

**3. Set rates which provide sufficient revenue to promote adequate investment in infrastructure.**

If utilities are not allowed to charge adequate rates to recover the costs of doing business, they will not be able to invest adequate amounts in maintenance and upgrading infrastructure. The result is low quality service. The Commission will carefully review the rates it sets to allow utilities to charge rates which will enable them a fair rate of return on capital and sufficient investment in infrastructure, while keeping rates reasonable for ratepayers.

Rather than deferring needed investments to keep rates affordable, the Commission should employ targeted subsidies to keep rates affordable to low-income customers and, if needed, broader-based subsidies (either explicit or implicit) for the remaining customers.

**4. Authorize a surcharge mechanism for direct reimbursement of Construction Work In Progress prior to plant start-up.**

For utilities, the costs of investing in new water plant and related equipment can be financially daunting. Typically, utilities recover such costs either through Allowance for Funds Used

**Objective: Set Rates that Balance Investment, Conservation, and Affordability (...continued)**

During Construction (AFUDC) or as Construction Work in Progress (CWIP).<sup>30</sup> AFUDC does not provide utilities with needed cash flow for significant investments, and results in higher costs to customers due to higher carrying charges on invested capital.

Sharp increases in rates over a short period of time can provide substantial financial challenges to ratepayers. With Construction Work in Progress, it is possible to “level-off” plant investment start-up costs by averaging those costs over several billing periods, and ratepayers are better able to allocate the funds required to pay their bills. The overall costs of the plant are reduced, because the water utility has lower interest payments, and the ratepayers benefit from the resulting lower rates. Water utilities also benefit from having start-up costs averaged over several billing periods early during the investment cycle, rather than having to wait until the plant actually is ready for service (as they would if AFUDC were used instead). For certain long-term projects, the Commission will consider accounting for Construction Work in Progress in rate base as the appropriate policy.

**5. Allow valid development costs to be recovered as they occur.**

Similarly, certain valid development costs incurred prior to actual plant start-up, such as environmental compliance costs and engineering costs, can be passed-through to ratepayers as they occur, rather than deferring the charges until actual plant start-up, which ratepayers may find more difficult to pay as a much larger one-time charge. This “prepay account” would reduce the “carrying cost” of the plant, thereby reducing the overall cost of the plant.

**6. Develop innovative policies to develop sources of funding needed for adequate infrastructure.**

The Commission will seek to develop and implement programs that will increase the ability of water utilities, particularly the smaller utilities to get access to the capital they need to build adequate infrastructure to provide clean and reliable water not only today but in the future. The Commission encourages all participants in our proceedings to develop and propose innovative approaches to assist water utilities, particularly the smaller Class C and D water utilities.

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<sup>30</sup> AFUDC: the net cost of borrowed funds used for construction purposes which are added to actual construction costs to arrive at a total cost for facilities. AFUDC is accounted as earnings, but does not produce cash flow for a utility. CWIP: an account for capital expenditures on facilities not yet in service because they do not produce cash earnings.

## **Appendix A**

### **California Urban Water Conservation Council:**

**14 Best Management Practices** (for a detailed description of these, and potential, Best Management Practices, see: <http://www.cuwcc.org/memorandum.lasso>)

1. **Residential Surveys**
2. **Residential Retrofits**
3. **System Water Audits**
4. **Metering**
5. **Landscape**
6. **Clothes Washers**
7. **Public Information**
8. **School Education**
9. **Commercial, Industrial, & Institutional Accounts**
10. **Wholesaler Incentives**
11. **Rates**
12. **Conservation Coordinator**
13. **Waste Prohibitions**
14. **Ultra-Low Flush Toilets**

### **Reasons Why Class A and B Water Utilities Regulated by the CPUC Should Sign the California Urban Water Conservation Council Memorandum of Understanding**

The California Urban Water Conservation Council, with the Memorandum of Understanding (MOU) that it administers, is an important resource for the investor-owned utilities. Here are some reasons why all Class A and B utilities should sign the MOU:<sup>31</sup>

#### **1. The Memorandum of Understanding is a benchmark standard for water conservation in California.**

Since December of 1991, water utilities in California have considered this set of Best Management Practices to be a minimum requirement for water efficiency. In addition to the water utilities, the regulatory agencies consider these practices to be a benchmark as well (see

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<sup>31</sup> Excerpt from email message to Fred Curry, Chief of Water Branch of CPUC Water Division, from Mary Ann Dickinson, Executive Director, California Urban Water Conservation Council, November 4, 2005.

numbers 4 and 5 below.) It is important to note that these Best Management Practices, or BMPs, have not been static since 1991; they are revised by the membership on a continuous basis to reflect current conditions in California, current available technologies, and the best cost-effective conservation options. However, only those utilities that have signed the MOU are eligible to participate in voting changes. Therefore, investor-owned water utilities need representation on the Council to ensure that their unique issues are considered.

**2. The Best Management Practices are deemed to be cost-effective water.**

A basic premise of the MOU is that the BMPs are adopted as cost-effective conservation. This means that for nearly all water agencies and utilities in California, implementing the BMPs will result in saved water obtained below the cost of procuring new water. While particularly critical during drought periods, conserving water is also important in all hydrological scenarios as California continues to grow so rapidly. The new growth can be supplied from conserved water far more cheaply than from additional procured supplies such as the State Water Project or new supply development, thus resulting in rate-payer savings.

**3. BMP implementation costs should be automatically eligible for rate recovery without having to separately prove value.**

In adopting the BMPs, the Council goes through all the necessary benefit-cost analyses to determine that these measures have a benefit-cost ratio of 1 or greater. Some programs are so cost-effective (the CPUC-funded pre-rinse spray valve program, for example) that the benefit-cost ratio (or Total Resources Cost as referred to by the CPUC) is well above a value of 4. Therefore, the CPUC could easily determine that BMP programs are high-quality rate-payer investments and therefore ease the burden on investor-owned utilities to prove their value. That has already been done at the Council level; CPUC is a member of the Council and could automatically participate in this process to alleviate any remaining concerns they might have.

**4. The State Water Resources Control Board considers the BMPs to be a benchmark.**

The State Board currently examines a water agency's compliance with the BMPs every time they consider a water rights amendment. Two major cases have been held in the past year that have featured sufficient conservation compliance as a primary element of the State Board's decision-making. Further, since 1994 the State Board has been making its state revolving loan funds (SRF) available only to those water utilities that have signed the MOU and are implementing the BMPs. While most investor-owned utilities do not handle wastewater issues and therefore would have no need to obtain state revolving loan funds for wastewater collection, capacity expansion or treatment, it is important to note that the State Board considers the BMPs to be of such benchmark levels that they are required compliance for not only the wastewater agency applicant, but for the water utility supplying drinking water that ends up in the wastewater applicant's service area.

**5. The Department of Health Services also considers the BMPs to be a benchmark.**

Following the lead of the State Board, the California Department of Health Services revised its SRF Funding criteria to make these loans available only to those water utilities that have signed

the MOU and are implementing the BMPs if the utilities serve more than 3,000 connections or 3,000 acre-feet annually. These SRF loans are given for drinking water supply capacity and treatment applications, and many investor-owned utilities do apply for these funds. This requirement was adopted in 2004.

**6. Members of the Council qualify to participate in statewide BMP implementation programs managed by the Council.**

The Council is now undertaking to manage statewide implementation programs to reduce the costs of implementation for its members. The first such program was the CPUC-funded pre-rinse spray valve program, where member water utilities could get direct installation of the spray valves in restaurants for the co-pay share of \$50 per valve, a bargain price. That price includes installation, verification of results by a 3rd party evaluator, and a centralized database function managed by the Council. Based upon this successful model, the Council has applied and received funding under Proposition 50 to manage a statewide one-stop-rebate program, where a water utility can have the Council manage in one location its various rebate programs it wishes to offer. This program should be of particular interest to investor-owned utilities who otherwise would not qualify for Proposition 50 funding on their own, but can legally participate in this subsidized rebate program through the Council. These implementation programs are only available to signers of the MOU that are current with their dues contributions to the Council.

**7. Members of the Council receive many benefits as part of their dues.**

As a member of the Council, an investor-owned water utility can receive technical assistance in the design and implementation of their BMP programs from qualified Council staff; receive greatly subsidized training in conservation through workshops and DVD training materials; obtain free publications on conservation savings and evaluation issues; gain access to the Council's voluminous reference lending library and four sets of sonar leak detection equipment; gain access to spreadsheets and other tools for evaluating conservation programs; gain access to a network of conservation professionals across the state; and participate in Council committees designing residential commercial, industrial, landscape, water loss management, and rates programs.

*... from Mary Ann Dickinson, Executive Director, California Urban Water Conservation Council,*

**Implementation of Best Management Practices by the Metropolitan Water District of Southern California**

The Metropolitan Water District of Southern California has successfully implemented several of these Best Management Practices. The following table illustrates some of Metropolitan Water District's conservation achievements with regard to specific Business Management Practices.<sup>32</sup>

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<sup>32</sup> The Metropolitan Water District of Southern California, "Regional Urban Water Management Plan", September , 2005, pp. 89-90.

## Conservation Achievements in Metropolitan's Service Area

BMP Number	BMP Name	Metropolitan Program Description	Device/Activity Description	Number Implemented	Metropolitan Expenditures
1	Residential Water Surveys	Financial support for surveys, retrofits	Surveys Total devices distributed Residential R&D (projects)	69,901 1,132,765 8	\$1,960,538 \$1,311,740 \$299,799
2	Residential Plumbing Retrofits	Financial support for retrofits and Distributions	Low Flow Showerheads distributed Faucet aerators distributed	2,968,576 225,239	\$12,413,187 \$224,073
6	High Efficiency Washing Machines	Financial support for rebates	Residential High Efficiency Washers rebated	93,062	\$6,022,786
14	Residential ULFT Replacements	Financial incentives for toilet retrofits	Some agencies are reaching saturation	2,134,839	\$133,501,638
		<b>Residential Total</b>		<b>6,624,390</b>	<b>\$155,733,761</b>
5	Large Landscape	Financial support for retrofit surveys	Audits conducted Central controller Protector del Agua graduates Landscape R&D (projects)	2,173 7 30,747 11	\$845,035 \$703,175 \$1,935,205 \$473,868
		<b>Large Landscape Total</b>		<b>32,938</b>	<b>\$3,957,283</b>
9	Commercial, Industrial, Institutional	Financial support for retrofit surveys, workshops and research & development	ULFT  Urinals  Flush Valve Kits Cooling tower retrofits Clothes Washer rebates Industrial process Improvements Pre-Rinse spray valves Other device rebates Workshops on commercial retrofits CII R&D (projects)	58,511  2,146  755 640 19,705 3 12,675 1,704 7 11	\$3,777,731  \$168,587  \$18,723 \$311,615 \$4,258,134 \$172,157 \$842,623 \$429,576 \$7,000 \$336,403
<b>CII Sector Total</b>				<b>96,157</b>	<b>\$10,322,549</b>
3	System Water Audits, Leak Detection	Distribution system audits/leak detection	MWD surveys own pipes & aqueducts		\$3,850,000
4	Metering and Commodity Rates	All connections metered	Yes		
7	Public Information	Materials & programs provided	Launched multi-media regional message	0	\$15,344,641
8	School Education	Full range of school curricula		0	\$8,990,293
10	Wholesale Agency Assistance	Technical and financial support for BMPs 1,2,5,6,7,8,9,11, and 14	Regional Water Efficiency media campaign, some programs managed for MWD's service area		
11	Conservation Pricing	Commodity rate structure in place			
12	Conservation Coordination	Staff of 10 people		0	\$13,282,690
13	Water Waste Prohibition	Exempt		0	\$0
<b>Misc.</b>	<b>Various Programs Programs Total</b>	No longer offered		1,719 1,719	\$1,569,070 \$43,036,694

Cumulative Total Spent by Metropolitan Water District through FY 2004:

\$213,050,287

## Appendix B

### CPUC Next Steps and Short-Term Objectives

**1. Complete the following proceedings:**

<b>Proceeding</b>	<b>Issues</b>
<b>Rate Case Plan</b> (R.03-09-005)	1. ORA proposes a 5-year cycle instead of 3-year cycle.  2. Close 10 Workshop issues, including:  ➤ Implementation of water quality enforcement standards. ➤ Reconsider process for interim rates – use advice letter without Resolution.
<b>Water Balancing Accounts</b> (R.01-12-009, D.03-06-072)	Re-examines policy and/or processes for recovering energy costs, purchased water, pump tax.
<b>Ratemaking for DHS Grants</b> (R.04-09-002)	Prop. 50 (2000) Determine Ratemaking (Gain on Sale and no Return on Grant projects). Grants from Department of Health Services.
<b>General Rate Cases</b> (A.05-08-006-013) Cal Water Service)	1. Decoupling of sales from revenues to eliminate the disincentives for conservation. 2. Develop low-income program. 3. Consider program to address higher cost areas.

**2. Work with Legislature and Industry** to determine the need for legislation to ensure that all low-income water users could benefit from low income rate assistance.

**3. Open an Order Instituting Rulemaking** to implement a pooling mechanism as well as a standard low-income rate assistance program based on the results of individual company programs.