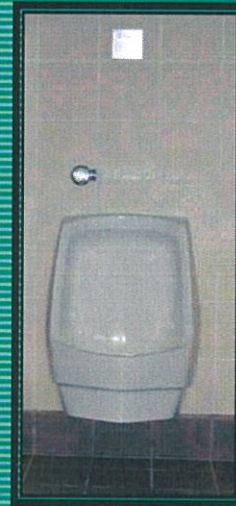


# The Metropolitan Water District of Southern California Five-Year Conservation Strategy Plan



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## Executive Summary

### OVERVIEW

Not long ago, Southern Californians endured the driest rainfall season in more than 100 years. Nonetheless, their water supply fared well. Why was the region able to withstand the drought conditions experienced in 2002? Southern California prepared well with a diverse supply portfolio complemented by a core of progressive water conservation achievements.

Integrated resource planning laid the foundation for the region's diverse water resource portfolio. As signatory to the *California Urban Water Conservation Council Best Management Practices Memorandum of Understanding*, Metropolitan's trend-setting conservation program provides the foundation of its integrated resource approach.

This report documents Metropolitan's near-term strategy for achieving conservation in coordination with its 26 member agencies through outreach to its 18 million constituents.

### IRP GOALS

In 2004, Metropolitan updated its Integrated Resource Plan with the goal of annually achieving 1.1 million acre-feet of region-wide conservation by 2025. This goal is to be achieved by sustaining pre-1990 conservation of 250,000 acre-feet, 550,000 acre-feet from compliance with plumbing codes and other laws, and 300,000 acre-feet from active program-based conservation. Overall, the region is accomplishing about 700,000 acre-feet annually at present.

### INCENTIVE-BASED PROGRAMS

Metropolitan's incentive based conservation program (also referred to as active program) is organized in three basic water-use categories:

- Residential indoor
- Landscape
- Commercial

Specific programs in each category provide financial incentives to promote retrofitting existing water-using devices with new models that use less water or to promote new water-efficient management practices. Regional conservation investments are founded on sound business practice where derived benefit must justify the cost. New actions are developed in close consultation with Metropolitan's member agencies and other stakeholders. Assistance from the U.S. Bureau of Reclamation (Bureau) and the state of California is especially valuable in assessing the merits of new devices and practices.

Current success is attributable to partnerships with Metropolitan's member agencies, which accomplish most of the actions with retail customers. Of the current regional savings of 700,000 acre-feet per year, Metropolitan's incentive-based programs are currently saving about

116,000 acre-feet per year of water. This document identifies a five-year block of programs and activities to advance active conservation toward 300,000 acre-feet annually by 2025.

Opportunities exist to reach out and partner in new areas with other entities that also derive a benefit from water conservation. Wastewater treatment agencies, energy providers, and watershed management authorities are potential partners benefiting from water conservation. In fact, in past partnerships Metropolitan has implemented conservation retrofits that save energy and water. Some member agencies that are also power utilities supplement Metropolitan's incentives to save energy and water.

### **RECENT ADVANCES**

Metropolitan continues to aggressively take steps toward new conservation opportunities and improved participation, and will continue to do so in the future. Recent advances include:

- Establishing a long-term Commercial, Institutional and Industrial regional program aimed at 17,500 retrofits per year
- Increasing incentives to achieve 9,000 gallons per year savings by retrofitting residential clothes washers with high-efficiency models with Water Factor of 6.0 or better
- Revamping existing large landscape program with attractive new options to receive incentives for improving irrigation efficiency
- Showcasing water-efficient devices and landscapes in model homes to encourage homebuyers and remodelers to be water efficient
- Testing the merits of synthetic turf
- Revising Protector del Agua landscape education program to inform greater numbers of interested people about new technologies and approaches
- Investigating 12 new innovative ideas for conservation
- Assessing the value of emerging weather-based irrigation controllers
- Upgrading water-use efficiency guidelines for lands annexed to Metropolitan's service area
- Simplifying administrative steps and aggressively marketing a program to save water by improving manufacturing process water use
- Providing creative advertisements and promotions that encourage voluntary replacement of turf with water-efficient California Friendly landscapes
- Participating in a statewide task force to assess upgrading municipal ordinances for landscape water-use efficiency

- Promoting Metropolitan's bewaterwise.com Web site, which helps homeowners create and maintain California Friendly landscapes by providing a variety of tools, information and reference database of about 1,500 plant species
- Renewing grant offerings for City Makeover and Community Partnering Programs
- Researching the effectiveness of toilet flappers sustaining expected water savings

### **PUBLIC OUTREACH**

Metropolitan is aggressively appealing to its public to rediscover Southern California's heritage of drought-tolerant plants and to be waterwise landscapers. Nurseries and botanic gardens are partnering in public outreach and education.

### **FIVE-YEAR STRATEGIC ACTION PLAN (2005-2009)**

A five-year span provides a manageable interval to plan and implement conservation actions targeting 2025 IRP Update goals. The plan will sustain successful programs and create new initiatives aimed at advancing active conservation from 116,000 acre-feet in 2005 to 145,000 acre-feet in 2009. The plan includes:

- A blueprint that describes the life cycle of an incentive program to retrofit devices from initiation through saturation
- Review of Metropolitan's existing incentive approach
- Transition plan for existing residential toilet replacement program to new manufacturing standards and technologies

As time progresses and new information and ideas come forward, the strategic plan will be updated to continuously maintain a fresh five-year outlook and approach.

## Water Conservation Strategy

### INTRODUCTION

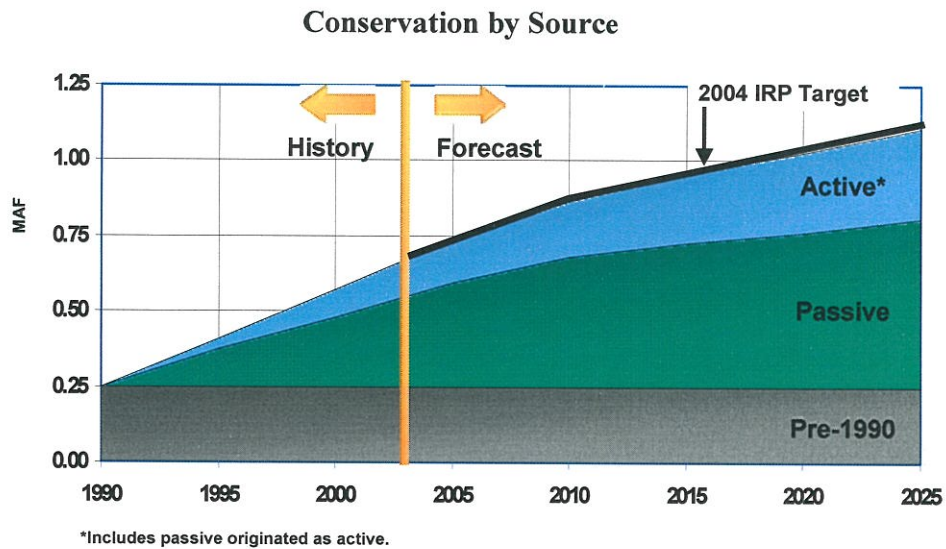
#### Objective

In July 2004, the Metropolitan Water District of Southern California's (Metropolitan) Board of Directors adopted the Integrated Water Resources Plan Update (IRP Update), which sets new cost-effective water supply targets for Southern California through 2025. The conservation target in the IRP Update is an estimate of what is necessary to meet the region's commitment to implement California Urban Water Conservation Best Management Practices for Urban Water Conservation Memorandum of Understanding.

This report documents Metropolitan's strategy and approach for meeting conservation targets established in the IRP Update. It also defines an implementation plan for meeting conservation goals and recommends regional program changes and enhancements to help improve overall water use efficiency within Metropolitan's service area. This report also describes existing board policy guidelines for the implementation of conservation under Metropolitan's Conservation Credit Program.

#### Conservation Target

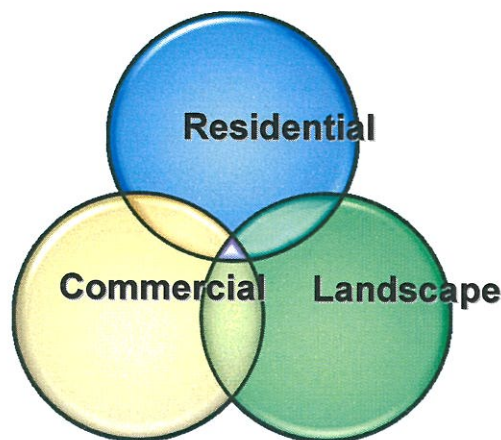
Metropolitan's conservation target in the IRP Update is based on demographic trends and an assessment of conservation programs that are deemed cost-effective. The target considers historical and forecasted data for housing and commercial development, remodeling rates, customer response to regulation and price, and prior success by water agencies in achieving water savings through financial incentives. Estimates of conservation are measured against a 1980 base-year accounting for both active (incentive program-based changes) and passive (regulatory compliance, consumer behavioral changes, and price response) water savings. The 1980 base year correlates with the water savings target in the IRP Update and recognizes the early accomplishments of Metropolitan and California in reducing water use through incentives and plumbing regulation.



The IRP Update conservation target is just over one million acre-feet in 2020 and about 1.1 million acre-feet in 2025. Metropolitan, in collaboration with its member agencies, plans to achieve the 1.1 million acre-feet savings target through 250,000 acre-feet of pre-1990 conservation, 550,000 acre-feet from plumbing code compliance and price response, and 300,000 acre-feet from active conservation incentive programs.

**Incentive-Based Conservation Categories**

Metropolitan’s active, incentive-based, conservation program is organized into three broad categories of water use: Residential Indoor, Landscape, and Commercial. While useful for segregating water uses, these categories overlap through common technologies and programs. Metropolitan provides financial incentives to retrofit existing high-water using devices, such as older toilets, with new models that use less water. Metropolitan also provides incentives for installing low-water use devices that exceed building standards in new homes and to encourage water-use efficiency improvements, such as landscape irrigation. Incentive-based actions are complemented by public education and outreach efforts.





As shown in the following table, Metropolitan and member agency co-funding efforts conserved approximately 97,000 acre-feet of annual water savings in 2003. Historically, implementation of conservation programs focused on Residential Indoor opportunities. Residential Indoor savings accounted for more than 90 percent of the total co-funded annual water savings. Based on past performance and program potential, the Residential Indoor, Landscape, and Commercial Programs are estimated to reach the 300,000 acre-feet regional target for active programs.

| Category           | 2003<br>(Acre-feet) 2% | 2025<br>(Acre-feet) 7% |
|--------------------|------------------------|------------------------|
| Residential Indoor | 87,666                 | 134,585                |
| Commercial         | 6,877                  | 80,763                 |
| Landscape          | 2,263                  | 85,563                 |
| <b>Total</b>       | <b>96,806</b>          | <b>300,911</b>         |

This report provides a strategy and implementation plan for the Metropolitan service area to achieve the water conservation savings target through implementation of cost-effective programs through participation of Metropolitan’s 26 member agencies and nearly 300 water retailers.

**Incentive Approach and Justification**

Through its Conservation Credits Program (CPP), Metropolitan provides financial incentives of \$154 per acre-foot of water saved or up to one-half project costs, whichever is less. This incentive rate is based on the value of conservation to defer new Metropolitan capital improvement projects and reduce operations and maintenance costs. The CCP is funded, in part, by collection of a water stewardship charge on every acre-foot of water sold by Metropolitan to its member agencies. During 2005, Metropolitan will initiate a review of its current incentive approach with the outlook of achieving water conservation targets identified in the IRP Update, in an optimal manner.

Entities that derive benefit from water conservation efforts are logical partners in advancing urban water conservation initiatives. In addition to water suppliers who pay for conservation through Metropolitan’s rates, benefits extend to others including wastewater treatment agencies, energy providers, solid waste agencies, watershed management bodies, and regional and local governments. To achieve greater equity and progress in urban conservation, the region should explore partnerships for securing funding and motivating public change commensurate with respective benefits received.

**New and Emerging Opportunities**

There is growing evidence that Commercial and Landscape conservation programs may be able to produce more water savings than currently projected. New technologies, regional landscape awareness and opportunities for industrial process improvements could create new savings not currently reflected in Metropolitan’s forecasts. Metropolitan continues to evaluate emerging technologies and trends for inclusion in its approach.

Metropolitan's education program provides information to Southern California's primary and secondary students regarding water issues and conservation. Recently, Metropolitan sponsored a grant program with the Bureau for local college and university students to develop solutions to meet future water needs, spurring new interest in broad areas of study.

More recently, efforts are being jointly implemented with the building industry to market water efficiency to homebuyers and shoppers. In partnership with local, regional, and national home builders, and sponsored by the California Building Industry Association and USBR, these program have the potential to influence the next generation of homebuyers and remodelers to consider water-efficient landscapes and devices.

Plumbing codes have long been a regulatory mechanism for improving water efficiency in new homes and businesses. New standards for plumbing fixtures that ensure water savings or allow the voluntary use of alternative devices can open up a whole new realm of water saving potential. Initially developed by the Los Angeles Department of Water and Power, and since adopted by some of Metropolitan's other member agencies, the Supplemental Purchase Specification, which requires a higher standard for flappers and tank capacity for ultra low-flush toilets, will help ensure continued water savings from a device over its lifetime. New alternatives, such as urinals that use little or no water and restaurant dish washing pre-rinse sprayheads, have created opportunities to incorporate water efficiency into plumbing codes with negligible cost impact to businesses.

Opportunities to use water rates to achieve water savings are also on the rise. With examples such as the Irvine Ranch Water District's increasing block rate structure and Metropolitan's tiered rates, the water industry has moved toward alternative ways to charge for water in an equitable manner that also encourages consumers to be water efficient. In a survey of retail water purveyors within Metropolitan's service area, all retail water purveyors use either an inclining block rate structure or a uniform rate structure, which are defined as conserving rates by the California Urban Water Conservation Council.

Innovative opportunities are placed in strategic context within this document; however, not all can be quantified for potential water savings at this time. For this reason, this plan also includes a section that describes the process of developing new conservation opportunities, which includes implementation from start to completion by saturation, regulatory requirement, market transformation, or sustaining water savings without the need for continued agency support.

### **Short-Term Water Supply Condition Responses**

Metropolitan has long-standing programs for providing financial incentives, public messages and legislation to increase water efficiency in California. Based on natural variation in water supply conditions, Metropolitan's program strategy includes flexibility. In years of low forecasted supplies, incentive budgets may increase, public messages may intensify, and legislative options may be advanced ahead of schedule.

**RESIDENTIAL INDOOR**

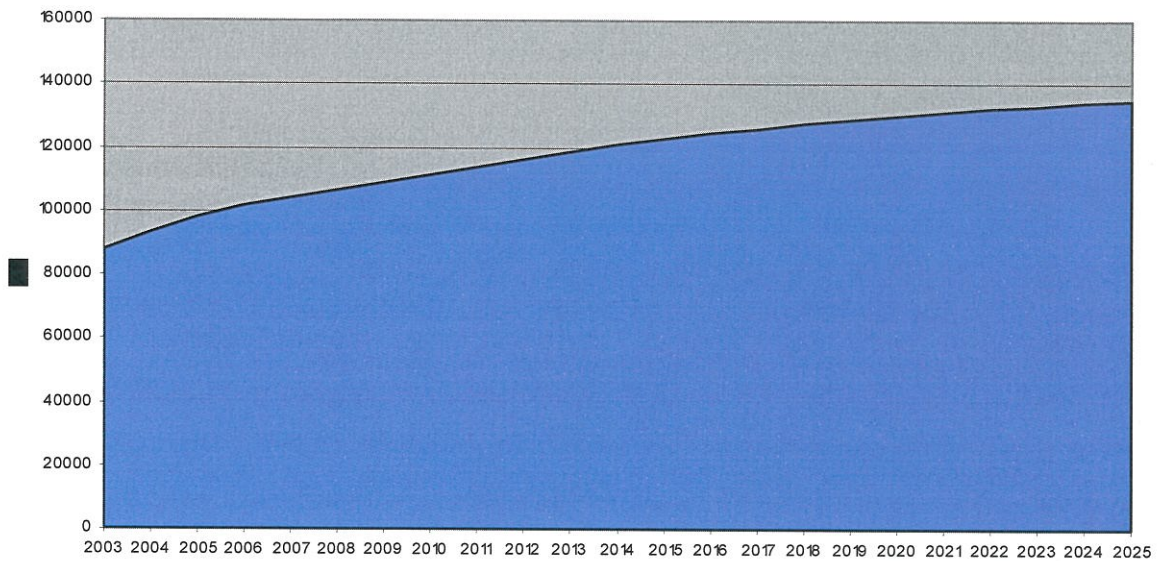
**Water Savings Target**

The Residential Indoor program target for water savings is about 135,000 acre-feet by 2025. Most of the projected increase in savings will come from dual-flush and other higher efficiency toilets, and to a lesser degree, from continuation of the Metropolitan’s current ultra-low flush toilet program.

The following table shows the estimated breakdown of water savings:

| <b>Device</b>       | <b>Units To-Date</b> | <b>Projected Units by 2025</b> | <b>Annual Water Savings in 2025</b> |
|---------------------|----------------------|--------------------------------|-------------------------------------|
| ULFT                | 2,189,501            | 3,202,001                      | 111,495                             |
| Dual-Flush Toilets  | 20                   | 1,527,520                      | 9,973                               |
| Survey              | 66,829               | 68,879                         | N/A                                 |
| Showerhead          | 2,929,249            | 2,931,249                      | 10,138                              |
| Aerator             | 23,411               | 40,911                         | N/A                                 |
| Displacement Device | 19,404               | 19,404                         | N/A                                 |
| Flapper             | 1,795                | 3,095                          | 28                                  |
| HECW                | 63,654               | 188,654                        | 2,951                               |
| Model Home Pilot    | None                 | 100                            | TBD                                 |
| New Development     | None                 | Unknown                        | Unknown                             |
| <b>Total</b>        |                      |                                | <b>134,585</b>                      |

**Residential Water Savings Target**

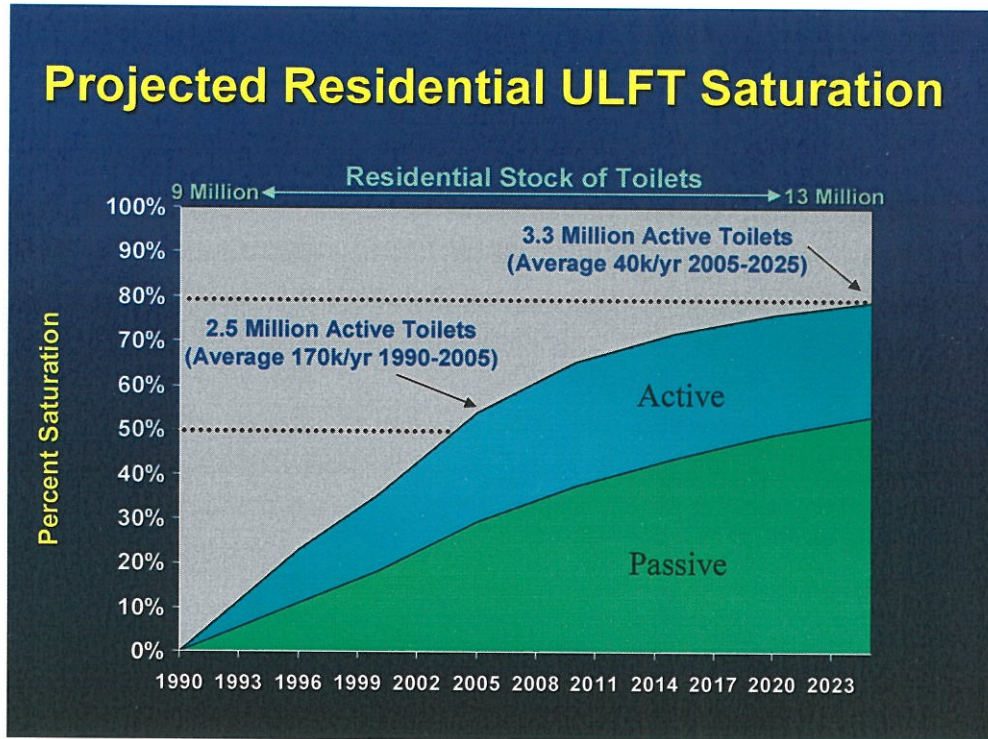


Total residential indoor conservation is targeted to increase from a current level of 88,000 acre-feet to nearly 135,000 acre-feet by 2025.

**Ultra-low flush toilet program**

| Device                          | Incentive Amount |
|---------------------------------|------------------|
| Ultra-low flush toilet          | \$60             |
| Dual-flush toilet               | \$80             |
| Upgrade from ULFT to Dual-flush | \$20             |

Metropolitan has funded ULFT programs since 1988. In 1992, federal legislation was enacted requiring 1.6 gallons per flush (gpf) toilets as the standard for toilets sold in the United States. Metropolitan forecasts 50 percent saturation of ULFTs in its service area by 2005 and 80 percent by 2025. Much of the increase in saturation would occur through compliance with 1992 federal legislation. As saturation increases, Metropolitan’s ULFT incentive program is projected to end by 2025.



Because of projected ULFT saturation through retrofit programs and natural replacement over time, ULFT program evolution will be evaluated to revitalize and extend water savings potential. One evolutionary example is outlined below; however, a final recommendation will be developed in consultation with the member agencies.

*Example:*

The first step would fund only toilets that meet higher standards beyond the current plumbing code. Toilet specifications developed by the Los Angeles Department of Water and Power have also been adopted by San Diego County Water Authority. As part of this step, an appropriate incentive to promote one-gallon per flush (gpf) toilets should also be developed. The second step would be to provide funding only for toilets that exceed the 1.6 gpf standard. This action would result in revising incentive rates in a stepped process as shown in the following table:

| Retrofit Device                 | Potential Step 2 Incentive Amount |
|---------------------------------|-----------------------------------|
| Ultra-low flush toilet          | Not funded                        |
| Dual-flush toilet               | \$80                              |
| Upgrade from ULFT to Dual-flush | \$20                              |
| One gallon per flush            | To be determined                  |

The final step would fund dual-flush and one gpf toilets and only pay for incremental water savings.

| <b>Retrofit Device</b>          | <b>Potential Step 3 Incentive Amount</b> |
|---------------------------------|------------------------------------------|
| Ultra-low flush toilet          | Not funded                               |
| Dual-flush toilet               | \$20                                     |
| Upgrade from ULFT to Dual-flush | \$20                                     |
| One gallon per flush            | To be determined                         |

An approach to address evolution of the ULFT program will be developed in consultation with member agencies and will be presented for board consideration in 2005 as part of a comprehensive refinement to the Commercial and Residential Indoor programs.

**Residential indoor survey program**

Metropolitan financially supports residential water-use surveys conducted by the member agencies with the following incentives:

| <b>Activity/Retrofit Device</b> | <b>Incentive Amount</b> |
|---------------------------------|-------------------------|
| Single family survey            | \$12.50                 |
| Low-flow Showerhead             | \$5.00                  |
| Toilet Flapper                  | \$4.50                  |
| Toilet Displacement Device      | \$3.00                  |
| Aerator                         | \$1.00                  |

Some items, including low-flow showerheads, aerators, and toilet displacement devices, have reached saturation levels or are no longer applicable as a result of retrofit programs and natural replacement. Consequently, Metropolitan support for residential surveys should be phased out and replaced by incentives designed for outdoor surveys. Outdoor surveys could support new landscape initiatives, such as the weather-based irrigation controller program. This approach conforms to proposed revisions to meet Best Management Practice (BMP) 1, Residential Water Surveys, which may be replaced with BMP 15. BMP 15 is proposed as a Residential Outdoor BMP. Phasing out the residential indoor survey program would be considered as part of a comprehensive upgrade to the Residential Indoor program presented to the Board in 2005.

**High-efficiency clothes washer program**

To date, Metropolitan has retrofitted over 100,000 residential clothes washers. Metropolitan began providing incentives for high-efficiency clothes washers in 1995.

| <b>Retrofit Device</b>                            | <b>Incentive Amount</b> |
|---------------------------------------------------|-------------------------|
| High-Efficiency Clothes Washer – Water Factor 6.0 | \$60                    |

Metropolitan provided \$35 per clothes washer based on estimated water savings typical of units with water factor 8.5. Water factor represents the amount of water needed to clean a standard load of laundry. Participation was low prior to increasing the incentive with non-Metropolitan and member agency funding. Starting in 1999, Metropolitan partnered for two years with Southern California Edison which added an incentive of \$50-\$100. Metropolitan received a CALFED grant in 2002 to provide an additional \$90 per high-efficiency clothes washer for a total incentive of \$125 per washer. As a direct result of grant funding, program participation increased from an average of 4,000 units per year to 20,000 units per year. At the end of the CALFED grant and while awaiting a second grant, the Board approved a temporary increase in Metropolitan’s funding to \$110 per HECW. In 2004, Metropolitan received Proposition 13 grant funding to provide an additional \$75 per HECW for a total incentive of \$110 per washer. This grant will likely be exhausted by June 30, 2005. Staff is working with the member agencies to seek additional grant funding and has submitted an application for Proposition 50 grant funding.

In November 2004, Metropolitan’s HECW base incentive was increased to \$60 per unit, targeting washers that save about 9,000 gallons per year. This incentive is based on an average water factor of 6.0, which will be required for Metropolitan incentive funding beginning July 1, 2005. In addition, the Board authorized bridge funding of an additional \$50 per unit for a total of \$110 per unit through December 31, 2005, when grant funds should become available if Metropolitan’s Proposition 50 application is selected for funding.

Legislation may take effect in 2007 and 2010 making only HECWs available for purchase in California. To be enforceable, California must receive an exemption from the Department of Energy (DOE), otherwise the federal standard preempts the state standard. DOE exemption would further Metropolitan’s service area conservation achievements. The California Energy Commission leads the effort to obtain the DOE exemption.

**Pilot Model Home Program**

Metropolitan’s pilot model home program promotes the installation of innovative, water-efficient landscapes and devices in model homes to stimulate public interest. Incentives are provided to builders for the incremental cost of equipping model homes with water-efficient fixtures and landscapes that exceed current codes. Fixtures include: dual-flush toilets or pressure assisted one gpf toilets; high-efficiency clothes washers (meeting California’s 2010 standard), weather-based irrigation controllers, and California Friendly landscaping. The following is a breakdown of the incentives available to builders for each participating model home:

| Device/Feature                                      | Incentive per unit | Maximum        |
|-----------------------------------------------------|--------------------|----------------|
| Dual-Flush or Pressure-Assisted one gallon Toilets  | \$100              | \$300          |
| High-Efficiency Clothes Washer                      | \$400              | \$400          |
| Weather-Based Irrigation Controller                 | \$200              | \$200          |
| California-Friendly Landscaping (2,000 sq.ft. max.) | \$0.80 per sq ft   | \$1,600        |
| <b>Total</b>                                        |                    | <b>\$2,500</b> |

A permanent program could be devised as a tool to influence and promote indoor and outdoor retrofits to save water if pilot program results prove beneficial.

**New Development Program**

Metropolitan recently adopted incentives for new development to install highly efficient fixtures that exceed current water use efficiency standards. Incentives are based on incremental water savings in excess of building codes and standards. Incentives include:

| New Development Device                                | Incentive Amount |
|-------------------------------------------------------|------------------|
| New construction high-efficiency clothes washer       | \$35             |
| New construction dual-flush toilets                   | \$20             |
| New construction weather-based irrigation controllers | \$65             |

Other opportunities to promote installation of water-efficient devices in new development will be explored with manufacturers, building industry and stakeholders.

**Relationship of Residential Indoor Program to BMPs**

The Residential Indoor Program addresses the following BMPs:

- BMP 1 Residential Water Surveys: Water survey program for single-family residential and multi-family residential customers, including both indoor and outdoor components.
- BMP 2 Residential Plumbing Retrofit: Residential plumbing retrofit, including low-flow showerheads (rated 2.5 gpm or less), toilet displacement devices (as needed), toilet flappers (as needed) and faucet aerators (rated 2.2 gpm or less).
- BMP 6 High-Efficiency Washing Machines: High-efficiency clothes washer rebate program for units meeting water factor 9.5 or less.
- BMP 14 Residential ULFT Replacement: Residential ultra-low flush toilet (1.6 gallons or less) replacement programs in single-family and multi-family residences.



**Summary**

Metropolitan will reach or exceed its residential indoor water savings target of 135,000 acre-feet in 2025 by continuing to support indoor residential conservation through toilet retrofits, surveys, and clothes washers. Through its residential indoor program, Metropolitan supports its member agencies in complying with BMP 1, BMP 2, BMP 6, and BMP 14. Metropolitan's proposed program enhancements would also support new and emerging technologies, including dual-flush toilets, one gallon per flush toilets, and high-efficiency clothes washers. Metropolitan's pilot model home program and new development program represent significant opportunities for additional residential savings. Voluntary advances by the building industry, manufacturers and homeowners complemented by strategic legislative efforts are pathways to encourage higher-efficiency devices in the residential indoor and outdoor sectors.

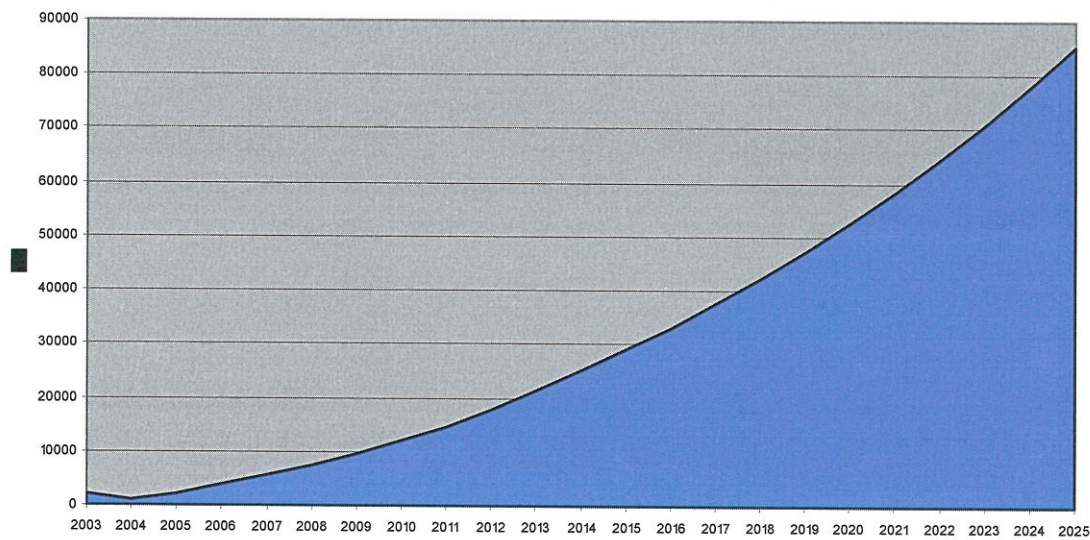
**LANDSCAPE**

**Water Savings Target**

The Landscape program target for water savings is about 85,000 acre-feet by 2025.

The graph below shows the projected water savings forecast.

**Landscape Water Savings Target**



The table below shows the projected water savings forecast by program component.

| <b>Program Components</b>         | <b>Units to Date</b> | <b>Projected Units by 2025</b> | <b>Annual Water Savings in 2025</b> |
|-----------------------------------|----------------------|--------------------------------|-------------------------------------|
| Water Use Accountability          | 0                    | 130,304**                      | 52,121                              |
| Measured Water Savings            | 0                    | 5,280***                       | 4,224                               |
| Commercial WBICs                  | 0                    | 29,500                         | 23,580                              |
| Residential WBICs                 | 138                  | 136,138                        | 5,638                               |
| Landscape Surveys (discontinued)* | 0                    | 0                              | 0                                   |
| Irrigation Evaluation w/o Timer*  | 0                    | 0                              | 0                                   |
| Irrigation Evaluation w/Timer*    | 0                    | 0                              | 0                                   |
| <b>Total</b>                      |                      |                                | <b>85,563</b>                       |

\* This historical (pre-2005) program component relied on changing end-user behavior without feedback to motivate on-going conservation. Resultant savings had limited persistence and are considered expired by 2005.

\*\* Acres under management

\*\*\* Acre-feet saved.

**Landscape Program Overview**

Metropolitan has funded residential and large landscape audits since 1993, retrofit of landscapes with centralized irrigation controllers since 1998, and rebates for weather-based irrigation controllers (WBIC) since 2002. The Board authorized upgrades to the large landscape program in September 2004.

Metropolitan currently funds residential landscape efficiency through outdoor audits and weather-based irrigation controller rebates. Metropolitan also funds commercial and institutional (CI) landscapes through four conservation program components:

1. Water Use Accountability
2. Measured Water Savings
3. Commercial and Institutional WBIC rebates
4. Professional Protector del Agua landscape irrigation training

These programs complement Metropolitan’s long-standing recycled water irrigation program.

**Residential outdoor audit program**

Metropolitan funds residential outdoor audits conducted by the member agencies with the following incentives:

| Device                              | Incentive Amount |
|-------------------------------------|------------------|
| Irrigation evaluation without Timer | \$8              |
| Irrigation evaluation with Timer    | \$18             |

Audits provide customers with recommended irrigation schedules and suggested improvements for irrigation systems. This program will also be used to promote the installation of WBICs and California Friendly landscapes.

**Residential Weather-Based Irrigation Controller Rebate**

Metropolitan funds weather-based irrigation controllers with the following incentives:

| Device                                | Incentive Amount                              |
|---------------------------------------|-----------------------------------------------|
| Residential WBIC (less than one acre) | \$65 plus \$5.50 per station over 12 stations |
| Residential WBIC (one acre or larger) | \$500 per acre                                |

Metropolitan provides incentives for single-family residences to install WBICs. For residential sites less than one acre, Metropolitan provides \$65 plus \$5.50 per station over 12 stations. For residential sites one acre or larger, Metropolitan provides \$500 per acre of irrigated landscape.

**WBIC Grant Program**

Metropolitan also received a \$1.8 million state grant to provide significantly higher incentives for weather-based irrigation controllers on a test basis to assess water use savings.

| <b>Irrigation Controller Stations</b> | <b>State Grant</b> | <b>Additional MWD</b> |
|---------------------------------------|--------------------|-----------------------|
| Up to 12                              | \$160-235          | \$65                  |
| 13 - 24                               | \$550-1,150        | \$5.50 per station    |
| 25 or greater                         | \$1,100-1,700      | \$5.50 per station    |

**CI Landscape Program**

| <b>Program Components</b> | <b>Required Training</b> | <b>Incentive Amount</b> | <b>Maximum Amount Payable</b>     |
|---------------------------|--------------------------|-------------------------|-----------------------------------|
| Water Use Accountability  | MWD provided             | \$2.50/acre/month       | 5 years/site up to ½ program cost |
|                           | Agency provided          | \$3.50/acre/month       | 5 years/site up to ½ program cost |
| Measured Water Savings    | MWD provided             | \$115/acre-foot         | 5 years up to ½ project cost      |
|                           | Agency provided          | \$154/acre-foot         | 5 years up to ½ project cost      |
| Commercial WBICs          | N/A                      | \$500/acre              | Up to ½ project cost              |

The new CI Landscape program provides agencies with the flexibility to choose from three components that best fit specific landscape sites.

1. Water Use Accountability: Metropolitan provides incentives to improve landscape water management practices via educational training and timely water use reports. Agencies provide landscape owners, managers, and maintenance personnel with reports comparing water use to actual site water budgets. Water use update reports are generated each billing cycle to measure and guide irrigation adjustments toward optimal water use. Participants are provided landscape water management training either by Metropolitan or the agency. A dedicated landscape meter is not necessary to participate in this program component.

Metropolitan provides incentives to reimburse agencies for up to 50 percent of their program costs. Incentives are \$2.50 or \$3.50 per acre per month of irrigated landscape under management, the rate depending upon whether Metropolitan or the agency provides the training.

2. Measured Water Savings: Metropolitan provides incentives to upgrade landscape irrigation equipment based on verified water savings. In addition, landscape water management training is provided to participants. A dedicated landscape meter is required for this pay-for-performance component.

Incentives are \$154 or \$115 per acre-foot of verified savings, rate depending upon whether the agency or Metropolitan provides the training. Incentives are paid for up to five years or one-half the project cost.

3. Commercial and Institutional WBIC Rebate: Metropolitan provides an incentive of \$500 per acre of irrigated landscape for WBICs. Incentives shall not exceed 50 percent of project upgrade costs. A dedicated landscape meter is not required to participate in this program component. As described in the prior residential text, additional grant-funded incentives are also available for a limited time.

These three options have recently been initiated and administrative improvements would be made as experience is gained.

### **Professional Protector Del Agua**

Metropolitan provides classes on a variety of subjects related to efficient landscape water management. Agencies can provide equivalent training via their own staff or program vendor to meet program requirements. An agency must decide whether to use Metropolitan training or provide training equivalent to Professional Protector Del Agua at the outset of their program.

### **Rate Structure**

BMP 11 requires the implementation of conservation pricing for retail water agencies. Conservation pricing includes rates designed to recover the cost of providing service and/or rates based on metered water use. The concept is that high-volume water users create disproportionate requirements for capital improvements and operating costs and should pay corresponding rates for those higher utility expenditures. Conservation pricing could have the following characteristics: fixed rate regardless of the quantity used (uniform rates); increased rate as the quantity used increases (increasing block rates); seasonal rates or excess-use surcharges to reduce peak demands during summer months; or rates based upon the long run marginal cost or cost of adding the next capacity unit to the system. Few agencies have non-compliant declining block rate structures, while many agencies are adopting increasing block rates. In a survey of retail water purveyors within Metropolitan's service area, all retail water purveyors use either an inclining block rate structure or a uniform rate structure, which meets the requirement of BMP 11 for conservation pricing.

The California Urban Water Conservation Council's 1994 report titled, "Setting Urban Water Rates for Efficiency and Conservation," provides information on innovative ways to price urban water service.

Further exploration into the benefits of conservation rate structures at the retail level and appropriate regional support should be conducted through a Metropolitan/member agency collaboration.

**Relationship of Landscape Program to BMPs**

The Landscape Program addresses the following BMPs:

- BMP 1        Residential Water Surveys: Water survey program for single-family residential and multi-family residential customers, including both indoor and outdoor components.
  
- BMP 5:        Large Landscape Conservation Programs and Incentives: Creation of landscape water budgets, periodic reporting of actual water use versus water budget, incentives to upgrade irrigation systems, and landscape conservation education.
  
- BMP 11:      Conservation Pricing for Metered Accounts: Establish customer water charges based on use and schedule for implementation.
  
- BMP 15:      (Proposed) Residential Outdoor: Residential outdoor programs, including outdoor surveys, water budgets, and other water conserving activities.

**Summary**

Metropolitan’s upgraded landscape program provides agencies and end-users with options to best meet their preferences and needs. Each option provides incentives and features derived from pilot program study results implemented by member agencies. Because these programs and products are new, they will be evaluated for adequacy and improvements.

Metropolitan estimates that by 2025, 85,000 acre-feet will be conserved through its existing and upgraded landscape programs. Additional water savings will be achieved through our regional advertising campaign and recycled water use.

**COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL**

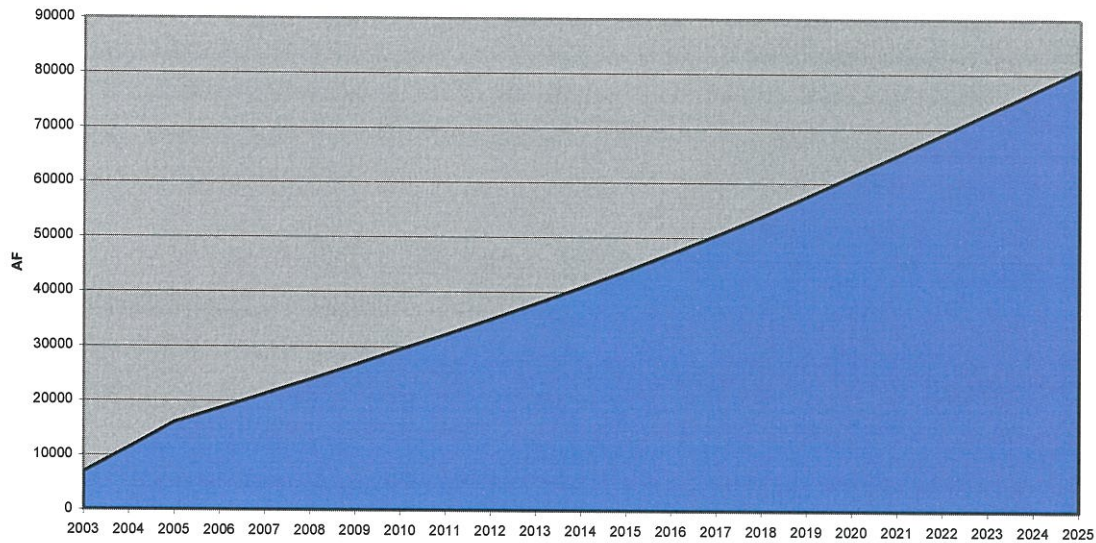
**Water Savings Target**

The Commercial, Industrial and Institutional Program target for water savings is about 80,000 acre-feet by 2025. Almost 80 percent of 2025 water savings are expected to come from CII high-efficiency clothes washers, cooling tower controllers, ULFTs and pre-rinse spray valves.

The following table shows the estimated water savings:

| <b>Device</b>                     | <b>Units To-Date</b> | <b>Projected Units by 2025</b> | <b>Annual Water Savings in 2025</b> |
|-----------------------------------|----------------------|--------------------------------|-------------------------------------|
| High-Efficiency Clothes Washers   | 13,073               | 189,073                        | 21,933                              |
| Cooling Tower Controllers         | 562                  | 6,012                          | 13,467                              |
| Ultra-Low Flush Toilet            | 39,903               | 802,138                        | 21,658                              |
| Pre-Rinse Valves                  | 10,603               | 40,603                         | 9,095                               |
| Surveys (discontinued)            | 650                  | 650                            | N/A                                 |
| Water Brooms                      | 689                  | 17,189                         | 2,630                               |
| Urinals                           | 1,784                | 69,987                         | 3,849                               |
| X-ray Processing                  | 101                  | 451                            | 1,443                               |
| Dual Flush                        | 218                  | 63,738                         | 2,167                               |
| Industrial Process                | 1                    | 45                             | 4,500                               |
| Flush Valve Kit (no longer doing) | 601                  | 851                            | 21                                  |
| <b>Total</b>                      |                      |                                | <b>80,763</b>                       |

**Commercial Water Savings Target**



**CII Program**

The CII program includes three major customer sectors – commercial, industrial and institutional. Items rebated through the CII Program are:

| <b>Retrofit Device</b>                    | <b>Incentive Amount</b> |
|-------------------------------------------|-------------------------|
| ULFT (Gravity & Flush Valve)              | \$60                    |
| Dual-flush toilet                         | \$80                    |
| Upgrade from ULFT to Dual-flush           | \$20                    |
| Urinals                                   | \$60                    |
| Pre-Rinse Spray Valve                     | \$50                    |
| High-Efficiency Clothes Washer            | \$100                   |
| Waterbroom                                | \$100                   |
| Cooling Tower Controller                  | \$500                   |
| X-Ray Film Processor Recirculating System | \$2,000                 |

Metropolitan has funded CII retrofits since 1997. Prior to 1997, Metropolitan conducted approximately 1,000 CII water-use surveys. These surveys provided valuable information to establish the CII program. The current CII program was authorized in 1997 and includes two components:



1. Menu Component: fixed rebates for common fixture retrofits or installations
2. Process Component: customized financial incentives for water-use process improvements on a pay-for-performance basis typically applied to manufacturing.

In 1999, Metropolitan partnered with member agencies on a regional pilot device-retrofit program for business. Metropolitan issued an RFP for region-wide vendor services to market, manage and pay rebates. This pilot was very successful compared to previous programs managed by individual member agencies. Based on the success of this model, a vendor-administered regional program began in 2004. The vendor works for Metropolitan and businesses are provided convenient one-stop shopping incentive services.

Member agencies that wish to manage their own commercial program remain eligible to receive device incentives under the CII Program.

New rebates for devices may be added as data is substantiated through the Innovative Conservation Program (ICP) or other sources.

- a. **Zero Water Consumption Urinals:** Currently, Metropolitan provides \$60 per unit for installation of one gpf and waterless urinals. Analysis of water savings from zero consumption urinals should be conducted to determine if rebate levels are appropriate. Acceptance of the technology at local levels may be accelerated through legislation or regulation.
- b. **Tiered Cooling Tower Controller Rebate:** Currently, Metropolitan offers \$500 per unit for installation of cooling tower controllers regardless of size and/or type of controller. Incremental water savings based on tower size and controller type should be assessed.
- c. **ULFTs:** Currently, Metropolitan offers \$60 per unit for ULFTs installed in the CII sector. This amount will be reevaluated specific to CII applications. As the residential program develops new rebate levels for higher efficiency toilets, those higher rebates may be incorporated into the CII program.

**Industrial Process Improvement Program**

Metropolitan’s Industrial Process Improvement program provides incentives to industrial customers to improve the water efficiency of their processes.

| Improvement Device              | Current 2004 Incentive Amount                                                      |
|---------------------------------|------------------------------------------------------------------------------------|
| Industrial Process Improvements | \$154 per acre-foot of water saved or ½ the cost of the project, whichever is less |

Metropolitan has offered incentives to industrial customers since 1997. There was low participation because of program complexity and difficulty in sector marketing. Based on focus

group input, Metropolitan's Board authorized improvements to the IPI program in 2004 that include:

- a. Partial payment up front
- b. Streamlined application process
- c. Outside vendor services for technical advice
- d. No project minimum size limits

These improvements are designed to encourage water efficiency improvements by individual operators within their facilities. Additionally, Metropolitan has initiated partnering opportunities with local sanitation districts to help market the program. USBR will provide funding to explore using a vendor to regionally administer the IPI program.

### **Relationship of CII Program to BMPs**

The CII Program addresses the following BMPs:

BMP 9            The CII Program addresses Sections b and d of BMP 9. Section b outlines the "Three-Year Interim ULFT Program", which accelerates the replacement of existing high-water-using toilets with ultra-low-flush (1.6 gallon or less) models. Section d addresses "Conservation Performance Targets". CII programs will achieve annual water use savings equal to 10 percent of baseline CII use over a 10-year period.

### **Summary**

The CII Program is functioning with a strong response. The IPI is a new approach that is expected to increase customer response. The overall commercial effort is on track for achieving the IRP-related target of 80,000 acre-feet per year savings.

The four major sources of commercial water-savings will be HECWs, cooling tower controllers, ULFTs and pre-rinse spray valves. Pre-rinse spray valve installations increased significantly with grant funding from the California Public Utilities Commission to install approximately 30,000 devices that save energy and water. HECWs and ULFTs are being installed in high volumes.

The industrial component has been recently modified to increase activity with results still outstanding. Co-funding, co-marketing, and internal/external technical assistance will be pursued in the next fiscal year to increase industrial water conservation activity and water savings.

Legislation and new plumbing code standards could also contribute to water savings. As local and state agencies adopt standards to make it easier to install new technologies, market penetration of these products such as water free urinals, dual flush toilets and waterbrooms will increase. Legislation prescribing water efficiency standards for pre-rinse spray valves and other technologies should be considered.

## **OUTDOOR CONSERVATION OUTREACH EFFORT**

In November 2002, the Board authorized a \$2.3 million campaign to educate consumers on the need to conserve water including advertising, education, and public/community outreach elements to foster a new landscape ethic referred to as “heritage gardening.” Metropolitan partnered with several different agencies to develop parallel programs. In October 2004, the Board allocated an additional \$3.2 million to extend the advertising campaign and create a public action campaign to educate consumers on efficient landscape design and irrigation. The following is a description of each program element:

### **Advertising Campaign**

The region-wide advertising campaign was based on research that homeowners typically irrigate their landscapes at twice the amount of water needed to remain healthy. The challenge was to raise awareness of residential over-watering and promote new tools – the watering index and calculator available online – that would be helpful to homeowners to determine how much water to use.

The campaign ran for three separate periods from August to October 2003, December to February 2004, August to November 2004 and is scheduled to run year-round beginning in March 2005. Radio, online and outdoor advertising in multiple languages used clever and whimsical approaches to educate residents about smarter water use, driving listeners and viewers to the [bewaterwise.com](http://bewaterwise.com) Web site for more information.

### **Bewaterwise.com**

This Web site helps homeowners create and maintain a California Friendly landscape by providing a variety of tools and information such as the watering index and calculator, and database of 1,500 native and California Friendly plants. [Bewaterwise.com](http://Bewaterwise.com) has hosted as many as 3,000 visitors a day during high volume periods, and receives an average of 1,000 visitors a day.

### **City Makeover Program**

Established in 2002, this competitive grant program provides funding to cities and public agencies for new native and California Friendly landscapes in prominent public locations. More than 40 agencies and cities applied in the first year. Eleven projects were selected for funding, with five winners receiving \$75,000 each and six receiving \$20,000 each. Deadline for applying for the current cycle of funding is March 30, 2005.

### **Community Outreach**

Metropolitan continued to build broad-based community support with the engagement of key stakeholders and opinion leaders through twice-yearly Heritage Landscape Forums. Attendees included Monrovia Nurseries, Village Nurseries, Valley Crest Companies, more than 25 cities including Los Angeles and San Diego, and representatives from the building industry, green industry and local public agencies.

**Retailer Outreach**

Metropolitan collaborated with retailers to encourage the inclusion of native and California Friendly plants in their product mix, and to join the advertising campaign by providing outdoor water conservation education through material distribution and classes. Twenty retailers committed to carrying native and California Friendly plants and displaying the campaign's banner and plant tags. Outreach efforts to retailers will enlist more partners.

**Additional Education Tools**

A number of educational tools have been developed to support the outreach campaign. They include a heritage gardening guide CD-ROM that contains a database of native and California Friendly plants with information on their care and maintenance. More than 100,000 CD-ROMS have been distributed.

An Expert Hotline was launched to provide the public with one-on-one technical information on native plant care and maintenance. Funded by Metropolitan, native plant experts from Rancho Santa Ana Botanic Garden will answer questions and provide resources for homeowners, landscape architects and maintenance professionals and others, as well as develop educational materials for [bewaterwise.com](http://bewaterwise.com).

A special edition of Metropolitan's public access program "Straight from the Tap" featured native and California Friendly plants. The program generated interest and call-ins for additional information. A "How To" segment is now being produced to track the conversion of a typical Southern California residential landscape to a water-efficient landscape.

## **LIFE CYCLE OF A PROGRAM**

Metropolitan offers a large variety of programs that are in various stages of implementation. The following summary is an explanation of these stages and examples of programs in each stage:

### **Identify conservation goals**

Metropolitan identified its goals for cost-effective conservation consistent with established BMPs through a collaborative process. Programs are designed to meet the water savings goals outlined in the IRP Update.

### **Identify and evaluate conservation incentives and program options**

Metropolitan identifies potential regional programs through several avenues including its Innovative Conservation Program (ICP), local pilot programs, and technical investigations using grants or in cooperation with other agencies, such as California Urban Water Conservation Council.

The ICP encourages the investigation and development of creative and new ways to conserve water. The first ICP grant cycle was completed in 2002. Two devices identified for retrofit incentives under the first ICP include the recirculating X-ray film developer used in hospitals and a pressurized water broom. Both have been incorporated into the Regional CII Rebate Program. Current ICP projects include a water-efficient landscape incentive program, synthetic turf demonstration project, a commercial food-steamers water savings study, and residential point-of-use hot water devices.

One example of a local pilot is the Municipal Water District of Orange County's Pilot Landscape Performance Certification Program, which became a component of Metropolitan's recently adopted large landscape incentive program upgrades.

Through grants, Metropolitan is studying a number of programs, including the installation of weather-based irrigation controllers, installation of synthetic turf in municipal and public lands, and industrial recirculation processes. The California Urban Water Conservation Council and Metropolitan, as one of six partnering agencies, recently completed a study of how toilet flapper longevity affects long-term water savings of toilet retrofits. In studies of statewide or national significance, Metropolitan favors working through CUWCC and key agencies in other parts of California to obtain broad consensus on findings.

### **Regional pilot**

Before being formally adopted as a permanent conservation credits program, a regional pilot program would be offered uniformly to all member agencies unless grant-funding constrains scope to determine feasibility and cost-effectiveness. An example would be the CII rebate program, which evolved from a regional pilot. For devices tested through the ICP or a local pilot project, the device found to be worthwhile may be added to an existing program upon board approval in lieu of a regional pilot stage. An example would be the inclusion of waterbrooms to the CII program.

**Program Implementation**

The next stage occurs when a program is approved by the Board and included in the conservation credits program. The CII program is just entering this stage with the new long-term regional program. The ULFT program has been in this phase for several years and is completing this phase. The low-flow showerhead has gone through the entire cycle and is essentially complete. During program implementation, administrative adjustments are made as experience is gained.

**Mature Program**

In this stage, a program may encounter saturation, changes in technology or other factors that affect the program. The ULFT program has been in the implementation stage for years and has moved into the mature program stage. Some areas are reaching saturation and new technologies like dual-flush toilets and one-gallon per flush toilets have entered the marketplace as the next opportunity.

**Ramp down and closeout**

When a program successfully accomplished its goal to the point of diminishing economic return on investment, it is ready for ramp down and closeout. For Metropolitan, this phase may be further into the future than for individual member agencies since Metropolitan continues to provide program support until the region reaches saturation. Individual agencies may have different levels of progress. With ULFTs, some individual agencies may have reached this phase while others have not. Metropolitan will work with its member agencies to develop a appropriate plan for ramp down and closeout of each program. Funding for closed out programs can be redirected to new programs as they enter formative stages.

**CONCLUSIONS AND FIVE-YEAR STRATEGIC ACTION PLAN (2005–2009)**

The 2004 IRP Update sets new water supply targets for Southern California through 2025, including a target of 1.1 million acre-feet for conservation. This report documents Metropolitan’s strategy approach to meeting the conservation target of 300,000 acre-feet from water savings linked to active conservation incentive programs.

This report recommends continuation of Metropolitan’s active, incentive-based conservation, which is categorized into three complementary program areas: Residential Indoor, Landscape, and Commercial targets.

Over the next five years the region should manage conservation activities to achieve the following savings by the end of 2009:

| Current Active Conservation |                |                |
|-----------------------------|----------------|----------------|
|                             | 2005           | 2009           |
| Residential Indoor          | 97,926         | 108,760        |
| Commercial                  | 16,041         | 26,645         |
| Landscape                   | 2,261          | 9,620          |
| <b>Total</b>                | <b>116,228</b> | <b>145,025</b> |

*5 Years*  
*Increase Needed*  
 $+16\% = 2.25\%/yr.$   
 $+66\% = 13.2\%/yr.$   
 $+325\% = 65\%/yr.$

As a result of recommendations discussed with member agencies, the following specific actions should be pursued in the upcoming five-year period to support achieving year 2009 water savings targets:

1. Residential Indoor Program
  - a. Consider toilet flapper replacement program and modify water savings estimates if not implemented
  - b. Establish incentive for dual-flush and one gallon per flush toilets
  - c. Evaluate ULFT program evolution and define new ULFT standards
  - d. Phase out residential indoor surveys
  - e. Obtain federal support of California HECW standards
  - f. Pursue State Proposition 50 grant for HECWs
  - g. Complete and evaluate model home pilot program

2. Landscape Program
  - a. Encourage voluntary irrigation and landscaping practices through public outreach
  - b. Participate in statewide task force reviewing state model landscape ordinance and related actions
  - c. Complete grant program and reassess benefits of WBICs
  - d. Review conservation based rate structure benefits
  - e. Revise PDA to reach greater audiences
  - f. Implement, assess and refine new commercial/institutional programs for large landscapes
  - g. Create residential outdoor audit program linked to WBICs and PDA
  - h. Evaluate synthetic turf options
3. Commercial Program
  - a. Establish incentive for zero-water consumption and ultra-low flush urinals
  - b. Establish tiered incentive for cooling tower controllers
  - c. Support legislation and new plumbing code standards for water-efficient devices
  - d. Pursue co-funding, co-marketing and internal/external technical assistance
  - e. Evaluate IPI program marketing
  - f. Implement, assess and refine CII program
4. New technologies, approaches, public outreach and incentive review
  - a. Outreach to building industry for voluntary actions
  - b. Influence public to adopt improved landscape efficiencies
  - c. Explore new retrofit incentives based on Innovative Conservation Program, pilots and other inputs
  - d. Seek favorable legislation on water-efficient standards
  - e. Conduct pilot programs to assess new approaches and emerging technologies with assistance of outside grants



- f. Use California Urban Water Conservation Council resources to conduct technical evaluations of statewide and nationwide application
  - g. Review incentive cap of \$154/acre-feet up to one-half project cost policy and alternative methods of motivating water-efficient practices and installations by the public
5. Establish equitable expectations and commitments
- a. Ensure new BMPs and CALFED expectations are fair and uniformly applied
  - b. Create partnerships with other beneficiaries (e.g., sanitation agencies, solid waste organizations)
  - c. Support use of water meters for all urban retail deliveries and billing

Strategies for reaching the targets presented in this paper will be continually evaluated and adjusted with a revised five-year outlook prepared periodically.

## 2004 IRP Update Targets: Percent Conservation

**Table 1. Dry-Year Retail Demands and Conservation (Acre-Feet)**

|                                               | 2005           | 2010           | 2015           | 2020             | 2025             |
|-----------------------------------------------|----------------|----------------|----------------|------------------|------------------|
| Retail Demands: Before Conservation           | 4,977,100      | 5,345,900      | 5,663,700      | 6,046,500        | 6,273,900        |
| <b>Total Conservation Target</b>              | <b>735,900</b> | <b>865,200</b> | <b>955,200</b> | <b>1,027,600</b> | <b>1,106,900</b> |
| Retail Demands: With Conservation             | 4,241,200      | 4,480,700      | 4,708,500      | 5,018,900        | 5,167,000        |
| <b>% Conservation as Part of Resource Mix</b> | <b>14.8%</b>   | <b>16.2%</b>   | <b>16.9%</b>   | <b>17.0%</b>     | <b>17.6%</b>     |

Data behind Figure 3-2 (page 3-26, resource targets)

Note: Excludes 500,000 AF of buffer supplies

## Metropolitan Water District of Southern California Average Year

| Demographics (1)              | 2005              | 2010              | 2015              | 2020              | 2025              | 2030              |
|-------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| <b>Population</b>             | <b>18,233,700</b> | <b>19,138,000</b> | <b>19,914,600</b> | <b>20,664,600</b> | <b>21,367,500</b> | <b>22,053,200</b> |
| <b>Occupied Housing Units</b> | <b>5,803,800</b>  | <b>6,145,200</b>  | <b>6,444,600</b>  | <b>6,751,100</b>  | <b>7,075,600</b>  | <b>7,376,400</b>  |
| Single Family                 | 3,477,300         | 3,651,000         | 3,767,600         | 3,945,800         | 4,128,700         | 4,250,100         |
| Multi-Family                  | 2,326,500         | 2,494,200         | 2,677,000         | 2,805,300         | 2,946,800         | 3,126,300         |
| <b>Persons Per Household</b>  | <b>3.08</b>       | <b>3.05</b>       | <b>3.03</b>       | <b>3.01</b>       | <b>2.97</b>       | <b>2.94</b>       |
| <b>Urban Employment</b>       | <b>8,186,200</b>  | <b>8,991,300</b>  | <b>9,402,700</b>  | <b>9,795,200</b>  | <b>10,163,000</b> | <b>10,537,600</b> |

| Conservation                            | 2005           | 2010           | 2015           | 2020             | 2025             | 2030             |
|-----------------------------------------|----------------|----------------|----------------|------------------|------------------|------------------|
| <b>Total Conservation</b>               | <b>735,900</b> | <b>865,200</b> | <b>955,200</b> | <b>1,027,600</b> | <b>1,106,900</b> | <b>1,188,300</b> |
| Installed Active Devices Through 2004   | 91,200         | 85,800         | 63,200         | 23,000           | 900              | 100              |
| IRP Conservation Target (2)             | 6,100          | 27,100         | 38,300         | 45,700           | 30,500           | 23,800           |
| Code-Based and Price-Effect Savings (3) | 388,600        | 502,300        | 603,700        | 708,900          | 825,500          | 914,400          |
| Pre-1990 Conservation                   | 250,000        | 250,000        | 250,000        | 250,000          | 250,000          | 250,000          |

| Total Demands After Conservation | 2005             | 2010             | 2015             | 2020             | 2025             | 2030             |
|----------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| <b>Total Demands</b>             | <b>4,303,900</b> | <b>4,649,500</b> | <b>4,767,600</b> | <b>4,930,600</b> | <b>5,071,500</b> | <b>5,193,800</b> |
| Retail Agricultural              | 347,800          | 318,800          | 285,000          | 250,500          | 215,000          | 194,600          |
| Retail Municipal and Industrial  | 3,768,000        | 4,053,400        | 4,196,900        | 4,392,100        | 4,569,600        | 4,719,400        |
| Groundwater Replenishment        | 140,100          | 200,400          | 212,800          | 215,100          | 214,000          | 206,900          |
| Seawater Barrier                 | 48,000           | 76,900           | 72,900           | 72,900           | 72,900           | 72,900           |

| Local Supplies                    | 2005             | 2010             | 2015             | 2020             | 2025             | 2030             |
|-----------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| <b>Total Local Supplies</b>       | <b>2,084,600</b> | <b>2,352,400</b> | <b>2,441,000</b> | <b>2,567,500</b> | <b>2,588,500</b> | <b>2,587,100</b> |
| Groundwater                       | 1,343,500        | 1,418,000        | 1,431,800        | 1,433,000        | 1,445,500        | 1,444,300        |
| Surface Water                     | 59,400           | 100,000          | 99,500           | 99,200           | 99,200           | 98,600           |
| Los Angeles Aqueduct              | 373,300          | 252,500          | 253,000          | 252,900          | 253,200          | 253,600          |
| IRP Local Resource Program Target | 600              | 28,900           | 43,400           | 49,500           | 49,500           | 49,500           |
| Groundwater Recovery              | 58,100           | 79,300           | 79,700           | 82,900           | 82,900           | 82,900           |
| Total Recycling                   | 208,800          | 315,100          | 342,900          | 366,900          | 367,700          | 367,700          |
| <i>M&amp;I and Agricultural</i>   | <i>140,000</i>   | <i>165,200</i>   | <i>193,000</i>   | <i>217,000</i>   | <i>217,800</i>   | <i>217,800</i>   |
| <i>Groundwater Replenishment</i>  | <i>52,000</i>    | <i>90,000</i>    | <i>90,000</i>    | <i>90,000</i>    | <i>90,000</i>    | <i>90,000</i>    |
| <i>Sea Water Barrier</i>          | <i>16,800</i>    | <i>59,900</i>    | <i>59,900</i>    | <i>59,900</i>    | <i>59,900</i>    | <i>59,900</i>    |
| Other Imported Supplies           | 40,900           | 158,600          | 190,600          | 283,100          | 290,600          | 290,600          |

| Demands on Metropolitan            | 2005             | 2010             | 2015             | 2020             | 2025             | 2030             |
|------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| <b>Total Metropolitan Demands</b>  | <b>2,219,100</b> | <b>2,297,200</b> | <b>2,326,700</b> | <b>2,363,200</b> | <b>2,482,900</b> | <b>2,606,700</b> |
| Full Service (Tier I and Tier II)  | 1,941,900        | 2,034,100        | 2,067,500        | 2,114,600        | 2,253,800        | 2,393,200        |
| Replenishment Water Rate (4)       | 167,500          | 169,200          | 179,700          | 182,800          | 183,100          | 176,800          |
| Interim Agricultural Water Program | 109,700          | 93,900           | 79,500           | 65,800           | 46,000           | 36,700           |

| Firm Demands on Metropolitan (5) | 2005             | 2010             | 2015             | 2020             | 2025             | 2030             |
|----------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|
|                                  | <b>2,019,000</b> | <b>2,100,000</b> | <b>2,123,000</b> | <b>2,161,000</b> | <b>2,286,000</b> | <b>2,419,000</b> |

**Notes:**

All units are acre-feet unless specified, rounded to the nearest hundred

Totals may not sum due to rounding

(1) Growth Projections: SCAG 2004 Regional Transportation Plan; SANDAG 2030 Forecast

(2) The 2030 savings target is derived from the 2003 IRP Update forecast projections for 2030; it is not an official target for 2030.

(3) Measured from 1990; Includes plumbing codes for pre-rinse spray heads and high efficiency washing machines

(4) Replenishment Water Rate demands include: seasonal shift, groundwater spreading, and groundwater in-lieu

(5) Firm demand on Metropolitan equals Full Service demands plus 70% of the Interim Agricultural Water Program demands

Active Conservation by 2030 = 300,000 AF (per mwd's 5-Year Plan p. 4 of 33)  
 300,000 AF / 25 years

**MEMORANDUM OF UNDERSTANDING**  
**BY AND BETWEEN**  
**WEST BASIN MUNICIPAL WATER DISTRICT**

**AND THE**  
**SURFRIDER FOUNDATION**

THIS MEMORANDUM OF UNDERSTANDING (the "MOU") is made and entered into this 27 day of June, 2005, by and between the West Basin Municipal Water District and the Surfrider Foundation. The West Basin Municipal Water District and the Surfrider Foundation may be referred to collectively as the "PARTIES" and individually as the "PARTY."

WITNESSETH

WHEREAS, West Basin Municipal Water District (West Basin) is a public water agency formed by a vote of the people in 1947 to provide safe and reliable supplemental supply of high-quality water to the region.

WHEREAS, in fulfilling its mission, the District provides public information and education on water issues, and implements conservation programs that help reduce the region's dependence on imported water and increase regional water supply reliability; and

WHEREAS, the Surfrider Foundation is a non-profit environmental organization dedicated to the protection and enjoyment of the world's oceans, waves and beaches for all people, through conservation, activism, research and education, and

WHEREAS, in fulfilling its mission, the Surfrider Foundation is initiating its "Ocean Friendly Gardens" program to educate the public and local governments on the water conservation and water quality benefits of drought resistant landscaping and water-saving irrigation devices and practices.

WHEREAS, in November 2002 the California voters passed Proposition 50, the Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002, which appropriated \$500 million for Integrated Regional Water Management Plan (IRWMP) Projects, and

WHEREAS, as part of the Proposition 50 – Chapter 8 – Integrated Regional Water Management (IRWM) Grant Program, West Basin will submit four Implementation Projects called "Landscape Conservation / Runoff Reduction Management & Educational Programs" under the four watershed areas known as

the: North Santa Monica Bay, Ballona, Dominguez, and Lower Santa Monica Bay Watersheds.

WHEREAS, pursuant to these programs, West Basin will form a partnership with the Surfrider Foundation to develop "Ocean Friendly Garden" workshops and demonstration gardens as a component of the program, and

WHEREAS, the intent of the "Ocean Friendly Garden" workshops and demonstration gardens is to promote the use of drought tolerant landscapes that use less water, resulting in reduced polluted urban runoff, and to encourage the public to plant similar gardens.

WHEREAS, the PARTIES have the desire and interest to undertake the development, implementation and administration of "Ocean Friendly Garden" workshops and demonstration gardens.

NOW, THEREFORE, IN CONSIDERATION OF THE MUTUAL COVENANTS AND PROMISES OF THE PARTIES HERETO, AND THE PROVISIONS, CONDITIONS AND TERMS PROVIDED FOR HEREIN, THE PARTIES AGREE AS FOLLOWS:

**SECTION 1. PURPOSE:**

- 1.1. MOU: The PARTIES hereby agree to submit four West Basin Proposition 50 Project Implementation proposals as part of the Proposition 50 – Chapter 8 IRWM competitive grant funding program. A component of the proposals is the development of the "Ocean Friendly Garden" workshops and demonstration gardens. The future implementation agreement ("Implementation Agreement") between the PARTIES will be contingent on the receipt of the grant funds.
- 1.2. IMPLEMENTATION AGREEMENT: If PARTIES are awarded grant funding through the submittal of the four proposals, then the PARTIES agree to develop, administer, and implement the "Ocean Friendly Garden" workshops and demonstration gardens. The Implementation Agreement will include the development of duties, terms, budgets, schedules, etc.
- 1.3. EXHIBIT A: The attached Exhibit A contains a copy of all four Implementation Projects that will be submitted under the Implementation section of the Proposition 50 – Chapter 8 IRWM competitive grant funding program. The Implementation Projects show the Surfrider Foundation as a partner of the "Ocean Friendly Garden" workshops and demonstration gardens component.

**SECTION 2. TERM:**

- 2.1. Term: This MOU shall have a term of two (2) years or until an Implementation Agreement is provided to the Surfrider Foundation. The

Implementation Agreement is contingent upon receiving State funding. The Implementation Agreement will set the term for the development and implementation of the "Ocean Friendly Garden" workshops and demonstration gardens.

**SECTION 3. MODIFICATION:**

- 3.1 Modifications: This MOU shall not be amended or modified, unless by mutual written agreement of all of the PARTIES. Any such written modification shall be attached and incorporated hereto.

**SECTION 4. TERMINATION:**

- 4.1 Voluntary Termination: Any PARTY may terminate its participation in this MOU upon ninety (90) days prior written notice to all the other PARTIES. Such termination shall be effective ninety (90) days after the notice is received or deemed received. The foregoing notwithstanding, the terminating PARTY shall continue to be responsible for any and all outstanding obligations, including, but not limited to, any debts, liabilities or other financial commitments incurred or pledged by the withdrawing PARTY.

**SECTION 5. NO THIRD PARTY BENEFICIARIES:**

- 5.1 No Third Party Beneficiaries: Nothing in this MOU shall be construed to give any person, other than the PARTIES hereto, and any legal or equitable right, remedy or claim under or in respect of this MOU or any provisions herein contained. This MOU and conditions and provisions hereof are intended to be and are for the sole and exclusive benefit of the PARTIES.

**SECTION 6. ATTORNEYS FEES:**

- 6.1 Attorney Fees: In any action or proceeding brought to enforce or interpret any provision of this MOU, or where any provision hereof is validly asserted as a defense, each PARTY shall bear its own attorneys' fees and costs.

**SECTION 7. SEVERABILITY:**

- 7.1 Severability: If any provision of this MOU is held, determined or adjudicated to be illegal, void, or unenforceable by a court of competent jurisdiction, the remainder of this MOU shall be given effect to the fullest extent reasonably possible.

**SECTION 8. SUCCESSORS AND ASSIGNS:**

- 8.1 Successors and Assigns: The terms and provisions of this MOU shall be binding upon and insure to the benefit of the PARTIES hereto and their successors and assigns.

**SECTION 9. NOTICES:**

- 9.1 Notice: All notices required or desired to be given under this MOU shall be in writing and (a) delivered personally, or (b) sent by certified mail, return receipt or (c) sent by telefacsimile communication followed by a mailed copy, to the addresses specified below, provided each PARTY may change the address for notices by giving the other PARTIES at least ten (10) days prior written notice of the new address. Notices shall be deemed received when actually received in the office of the addressee or when delivery is refused, as shown on the receipt of the U.S. Postal Service, or other person making the delivery, except that notices sent by telefacsimile communication shall be deemed received on the first business day following delivery.

West Basin Municipal Water District  
Mr. Art Aguilar, Co-General Manager  
Mr. Rich Nagel, Co-General Manager  
17140 S. Avalon Blvd., Suite 210  
Carson, CA 90746

Surfrider Foundation  
~~Mrs. Michelle Kremer~~ Mr. *Jim Moriarty*  
~~Interim~~ Executive Director  
P.O. Box 6010  
San Clemente, CA 92674-6010  
310-410-2890

**SECTION 10. EXECUTION OF AGREEMENT:**

- 10.1 Counterparts: This MOU may be executed in counterpart and the signed counterparts shall constitute a single instrument. The signatories to this MOU have the authority to bind their respective PARTY to this MOU.

**SECTION 11. INTEGRATION CLAUSE:**

- 11.1 Entire Agreement: The PARTIES acknowledge and agree that this MOU shall constitute the final expression of their agreement with respect to the

IRWMP MOU 6/27/05 – Agr. #W1638

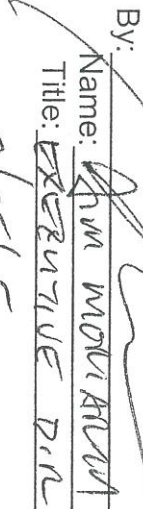
subject matter of this MOU. There are no restrictions, promises, warranties or undertakings, other than those set forth or referred to herein. This MOU supersedes all prior agreements and understandings between the PARTIES with respect to the subject matter.

**SIGNATURES ON FOLLOWING PAGE**



IN WITNESS WHEREOF, the PARTIES hereto have executed this MOU on the dates opposite their respective signatures:

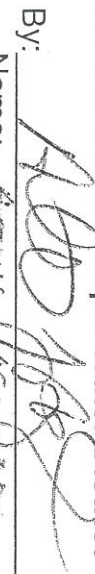
**APPROVED:**  
Surfrider Foundation

By:   
Name: Shawn Moriarty  
Title: Executive Dir  
Date: 9/25/05


**APPROVED AS TO FORM:**


By:   
Name: Steven O'Neill  
Title: Dist Dir  
Date: 9/25/05

**APPROVED:**  
West Basin Municipal Water District

By:   
Name: Anne Usgaard  
Title: CA-EM  
Date: 9/25/05

**APPROVED AS TO FORM:**

By:   
Name: Steven O'Neill  
Title: District Counsel  
Date: 8/1/05

By:   
Name: Richard West  
Title: CO-SM  
Date: 8/5/05

AGREEMENT NO. 52997

FY 2003-06

CENTRAL BASIN AND WEST BASIN MUNICIPAL WATER DISTRICTS  
RESIDENTIAL WATER CONSERVATION ITEM FUNDING AGREEMENT  
BETWEEN  
THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA  
AND  
CENTRAL BASIN AND WEST BASIN MUNICIPAL WATER DISTRICTS

AGREEMENT NO. 52997

FY 2003-06

CENTRAL BASIN AND WEST BASIN MUNICIPAL WATER DISTRICTS  
RESIDENTIAL WATER CONSERVATION ITEM FUNDING AGREEMENT  
BETWEEN  
THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA  
AND  
CENTRAL BASIN AND WEST BASIN MUNICIPAL WATER DISTRICTS

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Exhibits

|                                                   |
|---------------------------------------------------|
| Exhibit A: Funding Amounts for Conservation Items |
| Exhibit B: Data Reporting Format                  |
| Exhibit C: Project Report and Invoice             |
| Exhibit D: Verification Methodologies             |

AGREEMENT NO. 52997

FY 2003-06

CENTRAL BASIN AND WEST BASIN MUNICIPAL WATER DISTRICTS  
RESIDENTIAL WATER CONSERVATION ITEM FUNDING AGREEMENT  
BETWEEN  
THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA  
AND  
CENTRAL BASIN AND WEST BASIN MUNICIPAL WATER DISTRICTS

THIS AGREEMENT (Agreement) is made and entered into as of July 1, 2003 by and between The Metropolitan Water District of Southern California (Metropolitan) and Central Basin and West Basin Municipal Water Districts (Central Basin and West Basin). Metropolitan and Central Basin and West Basin may be collectively referred to as "Parties" and individually as "Party."

Recitals

- A. Metropolitan, through its Conservation Credits Program (Program), assists member agencies in conserving water supplies. The Program was established per authorization detailed in Board Letter No. 7-7 in May 1990 and subsequent authorizations from time to time. Pursuant to those Board authorizations, Metropolitan has established fixed rate funding for a number of water conservation items as shown in Exhibit A, which is attached hereto and incorporated herein by this reference;
- B. Metropolitan expects, in the future, to establish fixed rate funding for additional water conservation items and may also change existing funding rates;
- C. Metropolitan has fiscal responsibility to manage budget, and hence may have a need to limit availability of funds;
- D. Metropolitan is pursuing grant and other outside funding to increase the amount of funding per item and if obtained, intends to pass these funds to Central Basin and West Basin; and
- E. Central Basin and West Basin elect to participate in Metropolitan's Conservation Credits Program (Program) to replace non-conserving items within their service areas between July 1, 2003 and June 30, 2006 (Project).

NOW, THEREFORE, in consideration of the promises and covenants hereinafter set forth, the Parties do agree as follows:

Section 1: Project Description

- 1.1 Central Basin and West Basin elect to participate in Metropolitan's Program to replace non-conserving items within their service area between July 1, 2003, and June 30, 2006 (Project).
- 1.2 Metropolitan's funding contribution, which shall be in the form of credits on Metropolitan's water service invoices to Central Basin and West Basin, is fixed at the current Board approved amounts, which are shown in Exhibit A. If Metropolitan's Board approved funding amount changes for one or more items, an addendum to Exhibit A will be issued from Metropolitan and that addendum will fix the funding rate(s) and related eligibility conditions as of the addendum's effective date.
- 1.3 If Metropolitan secures additional funding from outside sources for one or more items, an addendum to Exhibit A will be issued from Metropolitan upon receipt of grant approval. The addendum will fix the funding rate(s) and related eligibility conditions as of the addendum's effective date. The funding amounts listed on Exhibit A and any addendums thereto are the limit of Metropolitan's funding obligation and Central Basin and West Basin shall be responsible for all costs in excess of those listed on Exhibit A and any addendums thereto during the term of this Agreement. For funding from outside sources, Central Basin and West Basin shall be responsible for any costs should the outside funding run out and Metropolitan's funding commitment will revert to the current Board approved amount in Exhibit A. For funding from outside sources, Metropolitan will provide monthly updates on the amount of used funds.
- 1.4 Central Basin and West Basin, at their sole discretion, may independently contract with their own vendors under separate agreements for Project administration and management, provided that they present no conflict of interest in Project performance.
- 1.5 As part of the Project, Central Basin and West Basin shall use and maintain an electronic database for any conservation items installed, distributed, vouchered, or rebated by Central Basin and West Basin or their vendors, to avoid duplicate distributions and to determine the saturation rate of items by the appropriate geographic delineation. The database format is being standardized and will be provided by Metropolitan electronically, but will be similar to the format provided by Exhibit B. This database shall be provided to Metropolitan on an annual basis, within 60 days after the end of each year of the Agreement.

Section 2: Agreement Term

- 2.1 This Agreement will be effective on July 1, 2003. Central Basin and West Basin will complete all item installations, distributions, vouchers, or rebates by June 30, 2006, and provide all final invoicing and verification to Metropolitan by August 31, 2006, or within 60 days after termination, whichever occurs first (Term). Continuance of this Agreement will be subject to annual budget approval by Metropolitan's Board. To the extent Metropolitan's Board determines not to fund one or more items listed on Exhibit A and

any addendums thereto, an addendum to Exhibit A will be issued from Metropolitan and that addendum will remove that item or items as of the addendum's effective date.

2.2 This Agreement may be amended at any time by written mutual agreement executed by both of the Parties.

2.3 This Agreement may be terminated by either Party for any reason 30 days after written notice to the other Party as provided in Section 8. Such termination could occur if the funding mechanism for conservation programs is changed as a result of action by Metropolitan's Board.

2.4 Upon termination, Central Basin and West Basin shall provide Metropolitan with complete documentation for invoicing and reporting requirements according to Paragraph 2.1 and Section 5.

#### Section 3: Agreement Administrators

3.1 Ms. Maria Biel is appointed Agreement Administrator for Metropolitan for the purpose of administering this Agreement and making any decisions in connection therewith on behalf of Metropolitan. Mr. Gus Meza is appointed Agreement Administrator for Central Basin and West Basin for the purpose of administering this Agreement and making any decisions in connection therewith on behalf of Central Basin and West Basin. The designated Agreement Administrators may be changed by providing written notice to the other Party as outlined in Section 8.

#### Section 4: Central Basin and West Basin's Responsibilities and Ownership

4.1 Central Basin and West Basin and/or their independent contractor(s) shall provide all necessary services and materials for the Project including, but not limited to, the following: program administration, promotion, marketing, marketing materials, data collection, analysis, and reporting.

4.2 All materials and supplies necessary to implement the Project shall be the exclusive property of Central Basin and West Basin. Metropolitan shall have no ownership, right, title, security interest, or other interest in any Project facilities, materials, or supplies, nor any rights, duties, responsibilities for operation or maintenance thereof.

4.3 As Lead Agency for this Project, Central Basin and West Basin are responsible for assuring that the Project complies with all federal, state, and local requirements.

4.4 Central Basin and West Basin are solely responsible for the performance of their staff or representatives in complying with the terms of this Agreement and for the proper allocation of funds provided by Metropolitan for the purpose of achieving water conservation savings under this Agreement.

4.5 Central Basin and West Basin are working with Metropolitan on developing a data management system that could be used by Central Basin and West Basin for the

following purposes: to store prior program participants, identify future marketing opportunities, and assess device saturation levels.

Section 5: Reporting Requirements and Invoicing

5.1 For any items installed, distributed, vouchered, and/or rebated by Central Basin and West Basin or their vendor(s), Central Basin and West Basin shall provide Metropolitan with quarterly invoices and a final project report due 60 days after termination of this Agreement. Sample summary sheets are attached as Exhibit C and incorporated herein by this reference. These summary sheets can be modified for use with any item listed in Exhibit A. Invoices are due on the following dates each year of the Agreement:

| <b>Invoice</b>          | <b>Due Date</b> | <b>For Reporting Period</b> |
|-------------------------|-----------------|-----------------------------|
| 1 <sup>st</sup> Quarter | November 30     | July 1 – September 31       |
| 2 <sup>nd</sup> Quarter | February 28     | October 1 – December 31     |
| 3 <sup>rd</sup> Quarter | May 31          | January 1 – March 31        |
| 4 <sup>th</sup> Quarter | August 31       | April 1 – June 30           |

Any change to this invoicing schedule must be approved in writing by Metropolitan and will not be extended more than 90 days.

5.2 Invoices shall include: a cover letter indicating the activity period; number of each item installed, distributed, vouchered, or rebated; the total dollar amount; a summary sheet similar to Exhibit C; documentation supporting the invoice; and the database in the format provided by Metropolitan, similar to Exhibit B. If no database format is provided by Metropolitan by the time this agreement is executed, then Central Basin and West Basin will continue using the database formats agreed upon in prior agreements. Central Basin and West Basin will review and approve any new database formats provided by Metropolitan for the possible use on any programs under this Agreement. Exhibit C shall be signed by Central Basin and West Basin's General Manager or designee certifying the number of items verified, as specified in Section 6, and invoiced. If Central Basin and West Basin's General Manager delegates authority to a designee, Central Basin and West Basin shall notify Metropolitan in writing of the name of the designee.

5.3 Upon receipt and approval of Central Basin and West Basin's invoice, Metropolitan will issue a credit on Metropolitan's next water service invoices to Central Basin and West Basin.

Section 6: Installation Verification

6.1 Central Basin and West Basin shall be responsible for selecting a method to verify installation of items installed, distributed, vouchered, and/or rebated by Central Basin and West Basin or their vendors during the Project and will pay all costs associated with this verification. Central Basin and West Basin can select from accepted verification

methodologies, which are provided in Exhibit D or adopt alternative methods of similar reliability. Central Basin and West Basin shall inform Metropolitan of their method(s).

6.2 Metropolitan will accept Central Basin and West Basin's certification of the number of items installed to calculate Metropolitan's final credit to Central Basin and West Basin, subject to the provisions of Paragraph 9.2 of this Agreement. If Central Basin and West Basin uses an outside entity to perform verification, Central Basin and West Basin shall avoid conflict of interest in the verification process.

6.3 For informational purposes only, Metropolitan reserves the right to conduct installation verification of items within the service area of Central Basin and West Basin within one year after submittal of final invoice to Metropolitan. Metropolitan will provide Central Basin and West Basin 60 days prior written notice of any scheduled installation verifications to be performed in Central Basin and West Basin's service area. At the time of notice, Metropolitan will also provide Central Basin and West Basin with the procedure and methodology of the verification process to be used in its service area. Metropolitan will provide Central Basin and West Basin with any documents relating to the project upon reasonable advance notice as stated in Paragraph 9.2.

Section 7: Final Payment

7.1 Final Project credit for Metropolitan's funding contribution will be based upon receipt and approval of Central Basin and West Basin's final invoice, including reconciling all previous invoices.

7.2 The number of installed items Metropolitan will credit to Central Basin and West Basin will be determined solely from the accuracy and completeness of Central Basin and West Basin's invoice documentation.

Section 8: Notice

8.1 Any communication required to administer this Agreement shall be in writing and will be deemed received upon personal delivery or 48 hours after deposit in any United States mail depository, first class postage prepaid, and addressed to the Party for whom intended, as follows:

If to Metropolitan:

The Metropolitan Water District  
of Southern California  
Post Office Box 54153  
Los Angeles, CA 90054-0153  
Attention Ms. Maria Biel

If to Central Basin and West Basin:

Central Basin and West Basin  
Municipal Water Districts  
17140 South Avalon Boulevard, Suite 210  
Carson, CA 90746-1218  
Attention Mr. Gus Meza



Any Party may change such address by giving notice to the other Parties as provided herein.

Section 9: Other Terms

- 9.1 Metropolitan and Central Basin and West Basin agree that each party shall be responsible for its own actions, and the actions of its officers, employees and agents, in performing services under this Agreement. Metropolitan and Central Basin and West Basin each agree to indemnify and hold the other Party and its officers and agents harmless and agree to defend the other Party against any claim or asserted liability arising out of its actions, either willful or negligent, or the actions of its officers, employees and agents, in performing services pursuant to this Agreement. Such indemnity will include any losses relating to any claim made, whether or not a court action is filed, and will include attorney fees and administrative and overhead costs related to or arising out of such claim or asserted liability. However, Central Basin and West Basin are solely responsible for any such actions arising under the California Environmental Quality Act (Pub.Res.Code §21000 et seq.).
- 9.2 Metropolitan, Central Basin and West Basin, and their authorized representatives agree to provide data and information as required by the other Parties to implement Project and evaluate Project implementation, costs, and water savings. Metropolitan and Central Basin and West Basin will make available for inspection to the other Parties, upon reasonable advance notice, all records, books, computer files, and other documents relating to Project. Such documents shall be available for inspection for a period of three years following completion of the reporting requirements specified in Section 5. If Metropolitan or any other public entity of jurisdiction conducts an audit and determines that any invoice is in error, funds will either be credited or debited by Metropolitan, on the next water service invoice, in accordance with the findings.
- 9.3 Any alteration or variation of the terms of this Agreement will not be valid unless made in writing and signed by both Parties, and that this Agreement constitutes the entire agreement between both Parties.
- 9.4 This Agreement will inure to the benefit of and be binding upon Metropolitan, Central Basin and West Basin, and their respective successors. This Agreement is not assignable by either Party in whole or in part.
- 9.5 The partial or total invalidity of one or more parts of this Agreement will not affect the intent or validity of this Agreement.
- 9.6 This Agreement will be deemed a contract under the laws of the State of California, and for all purposes will be interpreted in accordance with such laws. Metropolitan and Central Basin and West Basin hereby agree and consent to the exclusive jurisdiction of the courts of the State of California, and that the venue of any action brought hereunder will be in Los Angeles County, California.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement.

APPROVED AS TO FORM:


THE METROPOLITAN WATER DISTRICT  
OF SOUTHERN CALIFORNIA

Jeffery Kightlinger  
General Counsel

Ronald R. Gastelum  
Chief Executive Officer

By:   
Senior Deputy  
General Counsel


Date: 8-11/03

By:   
Stephen N. Arakawa, Manager  
Water Resource Management


Date: 8/17/03

APPROVED AS TO FORM:

CENTRAL BASIN AND WEST BASIN  
MUNICIPAL WATER DISTRICTS

By:   
General Counsel

Date: 7/23/03

By:   
Darryl G. Miller, General Manager

Date: \_\_\_\_\_

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## ADDENDUM NO. 9

### WATER CONSERVATION ITEM FUNDING AGREEMENT BETWEEN

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA  
AND  
BEVERLY HILLS, BURBANK, CALLEGUAS, CENTRAL BASIN/WEST BASIN,  
COMPTON, EASTERN, FOOTHILL, GLENDALE, INLAND, LAS VIRGENES, LONG  
BEACH, LOS ANGELES DEPARTMENT OF WATER AND POWER, MUNICIPAL  
WATER DISTRICT OF ORANGE COUNTY, PASADENA, SAN DIEGO COUNTY  
WATER AUTHORITY, SAN FERNANDO, SAN MARINO, SANTA MONICA,  
THREE VALLEYS, TORRANCE, UPPER SAN GABRIEL VALLEY AND WESTERN  
(Collectively referred to as "Member Agency")

1. This addendum revises Exhibits A, B, C, I and adds Exhibit G of the master agreement.
2. Metropolitan received \$1,660,000 in Proposition 50 funding for High Efficiency Clothes Washers (HECW) with water factor 6.0 or less, effective January 1, 2006. Grant funds shall be used in accordance with the terms specified in the State DWR Contract No. 4600004214, which is incorporated herein as Exhibit G.
3. The combined Metropolitan and DWR Proposition 50 grant incentive is \$110 per installed unit. Proposition 50 funds replace supplemental funding from Metropolitan outlined in Addendum 7. Incentives will be issued through December 31, 2007 or until grant funds are exhausted, whichever comes first. When grant funds are exhausted, HECW funding will revert to Metropolitan's Board approved incentive described in Addendum No. 8.
4. The attached table sets forth Member Agency's grant allocation. All unused allocations will expire at the end of Metropolitan's business day June 30, 2007.

5. Member Agency is responsible for providing Metropolitan with the HECW water factor, customer satisfaction survey, and installation verification as outlined in the State DWR Agreement provisions.
6. Member Agency shall submit an invoice and electronic database that includes HECW reporting requirements by the 15<sup>th</sup> of each month in order to receive credit the following month.
7. Exhibit A is a revised list of Metropolitan's incentives from Exhibit A in Addendum No. 8 to include the \$1,660,000 DWR grant for HECWs under Prop. 50.
8. Exhibit B provides revised database guidelines for member agency to use to accomplish reporting requirement pursuant to Section 1 of master agreement.
9. Exhibit C is a revised Invoice form to be used by the member agency's' general manager to certify all items submitted for credit. Included, as part of Exhibit C, requested to be submitted with each invoice, is a narrative and instruction for a customer satisfaction survey questionnaire.
10. Exhibit I is a chronology of Addendums for reference and incorporated herein.



---

Maria Biel  
Agreement Administrator

Attachment

### DWR HECW Proposition 50 Program

| Member Agency  | Prop. 50 Allocation |
|----------------|---------------------|
| Anaheim        | 820                 |
| Beverly Hills  | 25                  |
| Burbank        | 370                 |
| Calleguas      | 985                 |
| Central Basin* | 570                 |
| Eastern        | 475                 |
| Foothill       | 125                 |
| Glendale       | 425                 |
| Inland Empire  | 1,265               |
| Las Virgenes   | 200                 |
| Long Beach     | 870                 |
| Los Angeles    | 6,885               |
| MWD/OC         | 5,885               |
| Pasadena       | 645                 |
| San Diego      | 8,245               |
| San Fernando*  | 25                  |
| San Marino*    | 25                  |
| Santa Monica   | 100                 |
| Three Valleys  | 345                 |
| Torrance*      | 75                  |
| USGV           | 620                 |
| West Basin*    | 1,415               |
| Western        | 2,804               |
| <b>Total:</b>  | <b>33,200</b>       |

*NO CONT'S*

December 2003 – Present

| <b>Chronology of Addendums</b> |                                               |                                                                                                                                                                                                                                                                                                                                                |
|--------------------------------|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Addendum No.</b>            | <b>Authorization</b>                          | <b>Description</b>                                                                                                                                                                                                                                                                                                                             |
| <b>1</b>                       | Board Letter No. 8-6, dated October 2003      | Adds incentive of \$5.50 per station for commercial weather-based irrigation controllers.                                                                                                                                                                                                                                                      |
| <b>2</b>                       | Board Letter No 8-7, dated October 2003       | Provides bridge funding of \$110 for high efficiency clothes washers through June 30, 2004, at which time funding shall revert to \$35.                                                                                                                                                                                                        |
|                                | Board Letter No 8-5, dated November 2003      | Provides for Metropolitan's incentives to be available for new construction.                                                                                                                                                                                                                                                                   |
| <b>3</b>                       | DWR Grant Funding, Effective February 2004    | \$2.5 million grant funding was received from DWR for high efficiency clothes washers. DWR's HECW funding is \$75 and Metropolitan's incentive is \$35 for a total of \$110 per installed unit. Funds are available through April 15, 2007 or until funds are exhausted.                                                                       |
|                                |                                               | \$1,778,700 grant funding was received from DWR for weather-based irrigation controllers. Funds are available through April 15, 2007 or until funds are exhausted.                                                                                                                                                                             |
| <b>4</b>                       | DWR Grant Funding, Effective February 2004    | Metropolitan's Board approved \$250,000 for the California-Friendly Model Home Pilot Rebate Program.                                                                                                                                                                                                                                           |
| <b>5</b>                       | Board Letter No 8-4, dated March 2004         |                                                                                                                                                                                                                                                                                                                                                |
|                                | MWD Allocation, Effective August 2004         | 50 percent of DWR's \$2.5 grant funding has been expended.                                                                                                                                                                                                                                                                                     |
| <b>6</b>                       | Board Letter No. 9-10, dated November 9, 2004 | HECW incentive increased from \$35 to \$60 per unit for a higher efficiency standard. Due to exhaustion of Prop. 13 funds Metropolitan approved an additional \$50 for a total of \$110 per unit through December 31, 2005.                                                                                                                    |
| <b>7</b>                       | MWC Allocation, Effective November 2004       | Metropolitan is allocating DWR's grant funds on weather-based irrigation controllers through April 30, 2006                                                                                                                                                                                                                                    |
|                                | Board Letter No 8-8, dated September 2004     | Provides incentives for large landscape. Adds incentive of \$2.50 - \$3.50 per acre per month for Water Use Accountability projects. Adds incentive of \$115 - \$154 per acre-foot per year for Measured Water Savings. Provides \$500 per acre for weather-based irrigation controllers for commercial and single-family sites over one acre. |
| <b>8</b>                       | Board Letter No. 8-8 dated December 2005      | Authorizes implementation of updates for conservation incentive levels.                                                                                                                                                                                                                                                                        |
| <b>9</b>                       | DWR Grant Funding Effective January 2006      | \$1.6M of Proposition 50 grant funds were received for HECW's                                                                                                                                                                                                                                                                                  |

Subject to Available Funding

| <b>Section</b>                  | <b>Device/Item</b>                                                                                           | <b>Incentive Amount</b>                          |                |
|---------------------------------|--------------------------------------------------------------------------------------------------------------|--------------------------------------------------|----------------|
| <b>1</b>                        | <b>Toilets</b>                                                                                               |                                                  |                |
|                                 | Ultra Low Flush Toilet (ULFT)                                                                                | \$ 60.00                                         |                |
|                                 | High-Efficiency Toilet (HET)                                                                                 | \$ 165.00                                        |                |
|                                 | HET Upgrade/New Construction                                                                                 | \$ 30.00                                         |                |
|                                 | Dual-Flush Toilet or Pressure Assisted 1.0 gallon Toilets (limit 3) - California Friendly Model Home Program | \$100.00                                         |                |
| <b>2</b>                        | <b>High Efficiency Clothes Washer (HECW)</b>                                                                 |                                                  |                |
|                                 | HECW (Metropolitan's base per unit incentive)                                                                | \$ 75.00                                         |                |
|                                 | HECW (Total incentive through December 2005)                                                                 | \$110.00                                         |                |
|                                 | HECW (Total incentive including DWR Prop. 50 grant funds starting January 1, 2006 and ending June 30, 2007)  | \$110.00                                         |                |
|                                 | HECW (limit 1) - California Friendly Model Home Program                                                      | \$400.00                                         |                |
| <b>3</b>                        | <b>Residential Surveys</b>                                                                                   |                                                  |                |
|                                 | Irrigation Evaluation (w/o timer)                                                                            | \$ 8.00                                          |                |
|                                 | Single-family survey                                                                                         | \$ 12.50                                         |                |
|                                 | Irrigation Evaluation (with timer)                                                                           | \$ 18.00                                         |                |
| <b>4</b>                        | <b>Weather Base Irrigation Controller (WBIC)</b>                                                             |                                                  |                |
|                                 | WBIC using DWR grant funds: ***                                                                              |                                                  |                |
|                                 | <b>Irrigation Controller Stations</b>                                                                        | <b>DWR</b>                                       | <b>MWD</b>     |
|                                 | Up to 12                                                                                                     | Direct \$ 235                                    | \$80           |
|                                 |                                                                                                              | Self \$ 160                                      | \$80           |
|                                 | 13-24                                                                                                        | Direct \$1,150                                   | \$6.50/station |
|                                 |                                                                                                              | Self \$ 550                                      | \$6.50/station |
|                                 | 25 or greater                                                                                                | Direct \$1,700                                   | \$6.50/station |
|                                 |                                                                                                              | Self \$1,100                                     | \$6.50/station |
|                                 | WBIC not using DWR grant funds:                                                                              |                                                  |                |
|                                 | Residential (less than one acre)                                                                             | \$80.00 plus \$6.50 per station over 12 stations |                |
| Commercial (one acre or larger) | **\$630/per acre                                                                                             |                                                  |                |
|                                 | **\$630/per acre                                                                                             |                                                  |                |
| <b>5</b>                        | <b>Large Landscape</b>                                                                                       |                                                  |                |
|                                 | Water Use Accountability (WUA), if using Metropolitan's Professional Protector Del Agua (PPDA) for training  | \$2.50*per acre                                  |                |
|                                 | Water Use Accountability, if agency provides training                                                        | \$3.50 *per acre                                 |                |
|                                 | Measured Water Savings (MWS), if using Metropolitan's PPDA for training                                      | \$156/*per acre-foot                             |                |
|                                 | Measured Water Savings, if agency provides training                                                          | \$195*per acre-foot                              |                |
|                                 | * Maximum of five years or one-half of project cost.                                                         |                                                  |                |
|                                 | ** Up to 100 percent of cost of device                                                                       |                                                  |                |
|                                 | *** Available as allocated through April 30, 2006 as provided in Addendum No. 7                              |                                                  |                |







**MWD**  
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Conservation Credit  
**Invoice**

Date: \_\_\_\_\_

Agency: \_\_\_\_\_

Agreement No.: \_\_\_\_\_

Activity Period: \_\_\_\_\_

**Bill To:**  
PO BOX 54153  
Los Angeles, CA 90054-0153  
700 N. Alameda  
Los Angeles, CA 90054-0153

| Quantity | Item | Unit Price | Item Total | Met Funding | Grant Contribution | Member Agency Contribution | Number of Items Verified |
|----------|------|------------|------------|-------------|--------------------|----------------------------|--------------------------|
|          |      |            |            |             |                    |                            |                          |
|          |      |            |            |             |                    |                            |                          |
|          |      |            |            |             |                    |                            |                          |
|          |      |            |            |             |                    |                            |                          |

Comments:

**Total Invoice**                    \$ \_\_\_\_\_

**Rebate Activity Cost Breakdown**

|                |          |
|----------------|----------|
| Rebate Cost    | \$ _____ |
| Marketing      | \$ _____ |
| Administration | \$ _____ |
| Other          | \$ _____ |

I, \_\_\_\_\_ General Manager or designee of \_\_\_\_\_ certify that the information provided is verified in accordance with the guidelines provided in the Agreement by our staff who has no conflict of interest in the verification.  
**Note: Total credit amount may differ due to database information received.**

**Narrative**

Describe Administration activities, including quality assurance and verifications activities performed during the activity period:

Describe promotional and outreach activities:

Describe any problems or delays: What solutions do you plan to implement?

Other comments, suggestions, or lessons learned?

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**Customer Satisfaction Survey Questionnaire**

How did you hear about the rebate program?

Was the rebate price the contributing factor in purchasing a HECW?

Do you believe you are saving water and energy by using a HECW?

Did you receive rebate funds from another source?

Did you receive your rebate in a timely manner?

How satisfied are you with your purchase?