

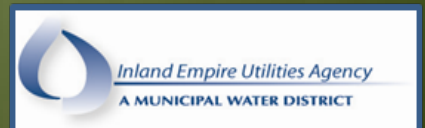


# Inland Empire Regional Water Use Efficiency Interim Business Plan

August 1, 2009 - June 30, 2010



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## Executive Summary

Development of reliable local resources is critical to maintaining current and future water supplies. Over the last several years, Inland Empire Utilities Agency (IEUA) and its member agencies have recognized the need to develop programs to protect current water resources so that adequate water supplies will be available for sustainability and future growth. The need for regional water supply diversification and an increase in local water resources is the primary force to ensure the reliability of IEUA and its member agencies' water supply.

Prior to the recent decline of the economy, the IEUA service area was one of the fastest growing areas in the State. IEUA and its member agencies currently serve approximately 850,000 residents with an anticipated growth rate of up to 50% over the next 20 years. New supplies of water will be needed to serve that increasing demand. Water use efficiency and conservation are the most cost-effective new source of water. Over the last year, demand reduction from water conservation activities has accounted for approximately **5%** or **12,000** acre-feet of the region's total water supply. IEUA's 2005 Urban Water Management Plan projects that conserved water will account for at least 10% percent of annual demand of IEUA's future water portfolio and will be an important component of local resource development.

As the regional wholesale supplier of water for the area, IEUA has assumed the role of coordinating the region's activities and programs to reduce demand. IEUA has worked closely with its member agencies to facilitate the installation of several thousand water saving devices in the region. IEUA member agencies, whose direct contact with retail customers is crucial to the implementation of water use efficiency measures, have co-funded these efforts along with IEUA and taken a proactive approach in educating and working with their customers to conserve water.

The purpose of this Water Use Efficiency Interim Business Plan is to develop a blueprint to help IEUA and its member agencies comprehensively plan for and implement future conservation activities and programs. The strategies and programs included in the plan are designed to meet the requirements of the:

- 2010 Urban Water Management Plan
- California Urban Water Conservation Council's Best Management Practices
- Assembly Bill 1420 Statute
- Governor's call for 20% per capita water use reduction by 2020
- Future conservation legislation and regulation

IEUA and its member agencies have outlined strategies for achieving demand reduction in indoor and outdoor uses. Implementation of these strategies will significantly contribute to the region's efforts to diversify its water portfolio.

### **Indoor: Residential & Commercial, Industrial, Institutional**

IEUA and its member agency's indoor water-use efficiency strategy will continue to provide cost-effective device-based programs that produce measurable savings.

- Monitor and expand device-based financial incentives to promote indoor conservation
- Continue proven marketing efforts to increase participation in indoor residential and commercial programs
- Leverage available funding opportunities and partnering opportunities to expand and increase incentive amounts

### **Landscape**

- Make water efficient landscaping a financially attractive option
- Assist member agencies in developing landscape irrigation budgets
- Support a professional landscaper certification program that customers can recognize and trust to ensure efficient installation, operation and maintenance of their irrigation systems.
- Work with Metropolitan Water District of Southern California and member agencies to bring water-saving landscape products and services to the market and to change the public's perception of water-efficient landscapes

## **Section 1: Introduction**

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In 2007, the State of California, and specifically the southern California region, reached a critical point in water supply reliability with the convergence of several key factors that include significant population increase, unseasonably low rainfall, critically dry conditions, and federally mandated environmental restrictions. In addition, on February 27, 2009, Governor Schwarzenegger declared a statewide drought emergency, calling on state agencies to take immediate action to reduce statewide demand and to implement measures that promote the “smart” use of water through efficiency.

As a result of these conditions, water use efficiency has become a statewide priority, and most State and local leaders recognize it as a vital component in meeting current and future water supply needs and reliability. In light of this, California Assembly Bill (AB) 1420 was enacted on January 1, 2009, conditioning eligibility for all State grants and loans on the requirement that all urban water suppliers with 3,000 connections or more fully implement water conservation best management practices.

In addition, effective January 1, 2010, California Assembly 1881, the Water Conservation in Landscaping Bill requires local landscaping ordinances to be “at least as effective as” the State Model Ordinance which is in the process of being finalized by the California Department of Water Resources.

Lastly, as a result of the Governor’s call for a 20% water use reduction by 2020, several pending legislative bills have been developed to ensure that water reduction becomes mandatory through the enactment of new legislation.

Water Conservation programs are a significant part of Inland Empire Utilities Agency’s (IEUA) Water Resources Program and, in light of that, IEUA recognized early on that water conservation would play a vital role in sustaining and meeting future water supply needs. With that in mind, in September 1991, IEUA became one first few water agencies to agree to sign the California Urban Water Conservation Council’s (CUWCC) Memorandum of Understanding Regarding Urban Water Conservation (MOU), accepting and supporting the implementation of voluntary water use efficiency Best Management Practices (BMPs).

Current water use trends indicate demand for water in the IEUA service area is flat or declining. For example, water production in the IEUA service area decreased by more than 5% as reported in the most recent IEUA “Annual Water Use Report (FY 2007/08).” With the implementation of the Metropolitan Water District of Southern California (MWD) Water Supply Allocation Plan and IEUA Drought Plan, water conservation programs will play a more critical role in stretching existing water supplies and minimizing the economic impact of reduced imported water supplies.

To continue to meet our regional Water Use Efficiency (WUE) goals there are several challenges IEUA and its member agencies will need to overcome: 1) make adjustments in response to the reduced availability of MWD rebate programs that encourage conservation, 2) comply with the requirements of AB 1420 and the CUWCC's MOU, 3) plan for anticipated new requirements to reduce water use 20% by 2020, and 4) plan for an increase in population, both in density and geographic area, within our service area boundaries.

Over the past 15 years, MWD rebate programs that encourage conservation have resulted in lifetime water savings of approximately 65,770 acre-feet in the IEUA service area. This includes rebates for water efficient appliances and devices including high efficiency toilets, high efficiency clothes washers, weather-based irrigation controllers, and rotating nozzles for pop-up spray heads.

Since the development of annual conservation reports and the gathering of program activity data in 2002-2003, the region has experienced substantial expansion of the conservation programs and in customer participation. Over three quarters of the growth occurred in 2005-2006 and beyond, when IEUA and its member agencies began targeting apartment complexes, condominiums and other multi-family properties with a no-cost toilet retrofit program. The region achieved a 29% increase in the distribution of high efficiency toilets over the previous years in which activity primarily relied on one day toilet exchange events.

Another factor that increased activity in the programs was a more effective marketing approach by Metropolitan's "Save-A-Buck" rebate program for Commercial, Industrial and Institutional (CII) as well as multi-family customers. The number of devices distributed throughout the service area increased by 67% over previous years, and was mainly attributed to multi-family customer participation.

In response to the reduced availability of MWD rebate programs, IEUA and other MWD member agency staff are working together to attempt to restore funding of these valuable programs. In addition, the draft FY 2009-10 IEUA Water Conservation budget includes \$95,000 to maintain IEUA funding of residential and CII rebate programs.

AB 1420, a recently passed state law, institutes new and improved water conservation practices by strongly encouraging California water agencies to implement Demand Management Measures (DMMs), which are equivalent to the BMPs contained in CUWCC's MOU. This law makes state water management grants and loans (including State Revolving Fund monies that support IEUA's regional recycled water program) contingent on compliance with the implementation of BMPs. IEUA complies with the requirements of AB 1420; however, IEUA member agencies do not all fully comply at this time. (Note that the California Department of Water Resources

estimates that 95% of California's water agencies do not presently comply with the requirements of AB 1420.)

IEUA and its member agencies are working cooperatively to develop a plan to enable member agencies to achieve AB 1420 compliance. This is a two-step process. The first step, begun in April, is to develop and implement an Interim Business Plan to achieve near-term compliance and set the stage for long-term compliance planning. The reasons for preparing an Interim Business Plan are:

- State grant and loan eligibility requires AB 1420 compliance, and
- An Interim Business Plan will demonstrate how an agency will meet compliance over a specified period of time to comply with AB 1420.

The Interim Business Plan has been jointly prepared by IEUA and member agency staff. The plan includes an assessment of existing conditions and a work plan to implement short-term initiatives. The Interim Business Plan is intended to assist member agencies in achieving AB 1420 compliance in the near-term, for the period of August 2009 through June 2010.

The second-step in this process is preparation of a long-term Water Use Efficiency (WUE) Business Plan. In the long-term, in order to achieve compliance with the requirements of AB 1420 and possibly a 20% reduction of water use by the year 2020, a more comprehensive and detailed plan will be required. Such a plan would include an in-depth analysis of water demand information, including sector analysis, saturation levels of water conservation devices, and passive and active conservation activity throughout the IEUA service area. This information would then be used to develop cost-effective WUE programs that will enable IEUA and its member agencies to achieve AB 1420 compliance and other WUE goals that are required under the Urban Water Management Planning Act and proposed new legislation. Equally important, the WUE Business Plan enables IEUA and its members to target limited financial and program resources to those activities that will yield the greatest sustainable water savings.

IEUA and member agency water conservation representatives have determined the preparation of the WUE Business Plan requires a higher level of technical expertise and resources than is presently available through staff. For this reason, the adopted FY 2009-10 Water Conservation budget includes a \$50,000 line item to fund the estimated cost of consultant services to prepare a long-term WUE Business Plan.



## **Section 2: Purpose of Plan, Goals, Objectives & Principles**

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### **2.1 Purpose of Plan Development**

Development of a regional WUE Plan is a two-step process that includes identifying near-term WUE activities that will provide full compliance with AB 1420 and the CUWCC BMPs (one-year), and long-term actions that will provide a roadmap to selecting conservation programs that are cost-effective, reduce demand on imported water, and meet future compliance with CUWCC BMPs, AB 1420, and regulatory/legislative actions (3-5 years).

The purpose of the Interim Business Plan is to provide a snapshot of near-term regional programmatic activities from August 1, 2009 through June 30, 2010, to evaluate IEUA and member agencies' compliance with the CUWCC's "old" BMPs, and to develop strategies to meet full compliance with the newly revised BMPs effective July 1, 2009. Over the last four months, IEUA and the member agencies have been collaborating on strategies that will meet compliance over the next year through collecting and analyzing data on BMP reports most recently submitted to the CUWCC, categorizing deficiencies, and resubmitting corrections and updates to the CUWCC so that full compliance will be achieved and member agency eligibility for all State grant and loan programs will be maintained.

The purpose of the long-term WUE Business Plan is to provide a regional programmatic guide for IEUA and member agencies in the planning and implementation of water use efficiency and conservation activities over the next three to five years. In addition, the plan will also serve as a component of the 2010 Urban Water Management Plan and in meeting existing and future demand reduction requirements set forth by the legislature. This plan will provide more in-depth research and technical analysis on past, present and potential future programs. The plan will include detailed sector analyses for each member agency based on end-use data, a regional saturation evaluation based on implemented WUE programs, identification of active and passive water savings within the region, cost-benefit analyses for existing and potential WUE programs, and potential water savings opportunities.

The main focus of these plans will be to establish structures for only programmatic activities and will not include activities required for compliance with the CUWCC "foundational" BMPs or AB 1420 "foundational" DMMs. IEUA and the member agencies determined that "foundational" activities are agency specific and thereby rely upon the independent decisions made by member agency managements.

## 2.2 Regional Goals

- Achieve and maintain compliance with AB 1420 (BMP/DMM) to ensure eligibility for member agencies for grants and loans
- Achieve and maintain compliance with other water use efficiency laws and regulations
- Achieve a reduction in per-capita water use by 20% by 2020, as called for by the Governor
- Guide regional water use efficiency programs
- Relieve drought and environmental impacts on regional water supply
- Increase water use efficiency, eliminate waste, and improve water supply reliability
- Contribute to other regional water resource management goals through the identification and integration of common interests such as groundwater recharge, recycled water, and composting

## 2.3 Plan Objectives

- Establish regional coverage requirements that must be achieved to comply with BMPs/DMMs.
- Evaluate existing programs' effectiveness using a provisional cost-benefit analysis
- Evaluate the costs and benefits of implementing potential new programs
- Select programs to implement based on a provisional cost-benefit analysis for compliance with each BMP/DMM, choose an alternative compliance strategy (GPCD or ALAEA), or develop justification for exemption
- Implement programs

## 2.4 Regional Principles

- ***Promote Water Resource Management.*** Manage cost-effective water use efficiency programs at a regional level using sound business decision-making practices to develop and implement strategies to meet water use efficiency targets and stretch limited water resources.

- ***Develop and Implement Regional Programs.*** Take advantage of economies of scale and stretch the limited regional water use efficiency budget by implementing programs on a regional basis. It is recognized that some programs can only be implemented at the individual agency level, such as budget-based tiered rate structures and water use efficiency ordinances.
- ***Build Member Agency Cooperation.*** Foster the cooperation, collaboration, and active participation of all Member Agencies for the successful development and implementation of water use efficiency programs. It is recognized that successful development and implementation of regional water use efficiency programs requires member agency cooperation in obtaining accurate water demand data, by customer class, in a timely manner, and promotion of cost-effective programs to customers.
- ***Develop Incentive-Based Programs.*** Develop cost-effective incentive programs that encourage participation, provide public benefit, and achieve quantifiable water savings.
- ***Public Recognition.*** Provide recognition to customers who have implemented measures resulting in extraordinary water use efficiency achievements.

## **Section 3: California Urban Water Conservation Council**

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### **3.1 California Urban Water Conservation Council**

The California Urban Water Conservation Council (CUWCC) was created to increase efficient water use statewide through partnerships among urban water agencies, public interest organizations, and private entities. The CUWCC's goal is to integrate urban water conservation Best Management Practices (BMPs) into the planning and management of California's water resources.

A historic Memorandum of Understanding Regarding Urban Water Conservation in California (MOU) was signed by nearly 100 urban water agencies and environmental groups in December, 1991. Since then the CUWCC has grown to 398 members. Those signing the MOU pledge to develop and implement fourteen comprehensive conservation BMPs.

Direction for the CUWCC is from a Steering Committee comprised of eight Group 1 members and eight Group 2 members, both with voting privileges, plus four Group 3 members and an ad-hoc representative from the Department of Water Resources and the Bureau of Reclamation. Representatives from Group 1 and Group 2 alternate annually in holding the leadership office. A representative from Group 3 acts as Secretary-Treasurer.

IEUA and its member agencies are all members of the CUWCC and are signatories to the MOU. IEUA and its members have been actively collaborating on water use efficiency activities since the mid-1990s and have been actively engaged in implementing many of the BMPs.

### **3.2 Best Management Practices**

A Best Management Practice (BMP) means a policy, program, practice, rule, regulation or ordinance or the use of devices, equipment or facilities which meets either of the following criteria:

- a) An established and generally accepted practice among water suppliers that results in more efficient use or conservation of water;
- b) A practice for which sufficient data are available from existing water conservation projects to indicate that significant conservation or conservation related benefits can be achieved; that the practice is technically and economically reasonable and not environmentally or socially unacceptable; and that the practice is not otherwise unreasonable for most water suppliers to carry out.

Although the term "Best Management Practices" has been used in various statutes and regulations, the definitions and interpretations of that term in those statutes and regulations do not apply to the MOU. "BMP" has an independent and special meaning in the MOU and is to be applied for purposes of this MOU only as defined above.

The following is a list of the BMPs currently incorporated into the MOU, listed by category; further detail on each BMP is included in Section 8, BMP Analysis below:

***Foundational BMPs***

- BMP 1: Utility Operations
  - BMP 1.1 Conservation Coordinator
  - BMP 1.2 Water Waste Prevention
  - BMP 1.3 Wholesale agency assistance programs
  - BMP 1.4 System Water Audits, Leak Detection and Repair
  - BMP 1.5 Metering with Commodity Rates for All New Connections and Retrofit of Existing Connections
  - BMP 1.6 Retail Conservation Pricing
- BMP 2: Education Programs
  - BMP 2.1 Public Information Programs
  - BMP 2.2 School Education Programs

***Programmatic BMPs***

- BMP 3: Residential (Programmatic)
  - BMP 3.1 Residential Landscape Water Survey Program
  - BMP 3.2 Residential Leak Assistance Program
  - BMP 3.3 High-Efficiency Clothes Washers
  - BMP 3.4 WaterSense Specification Toilets
- BMP 4: Commercial, Industrial, and Institutional
- BMP 5: Landscape

### 3.3 Implementation

"Implementation" means achieving and maintaining the staffing, funding and, in general, the priority levels necessary to achieve the level of activity called for in the descriptions of the various BMPs and to satisfy the commitment by the signatories to use good faith efforts to optimize savings from implementing BMPs as described in Section 4.4 of the MOU. Section B of Exhibit 1 to the MOU establishes the schedule for initial implementation of BMPs.

### 3.4 Programmatic BMP Compliance

Compliance with the BMP water savings goals can be accomplished in one of three ways:

- **Traditional Checklist Approach:** Accomplishing specific measures listed in each BMP;
- **Flex Track Program Menus:** Accomplishing a set of measures which achieves water savings greater than or equal to that which would have been achieved using only the traditional approach (formerly known as "At Least As Effective As" method); or
- **Gallons per Capita per Day (GPCD):** Accomplishing set water savings targets as measured in gallons per capita per day consumption and by counting overall water savings of the quantifiable measures from the BMP checklist or Flex Track Menu, plus additional savings achieved through implementation of the Foundational BMPs.

"Demonstrated water savings" represent unit water savings for individual BMP or Flex Track Menu conservation technologies and activities as established by either: (a) a water utility; (b) independent research studies; or (c) CUWCC-adopted savings as reviewed by the Research and Evaluation Committee and approved by the Steering Committee.

### 3.5 Exemption

A fourth method for meeting compliance with a BMP is through filing an exemption. An agency can file an exemption for one of three reasons:

- **Not Cost-Effective:** An agency can demonstrate, through a detailed cost-benefit analysis, that it is not currently cost effective to implement a particular BMP. A cost-benefit analysis weighs the costs of implementing a program against the benefit an agency receives based on the investment made and water conserved.
- **Lacks Legal Authority:** An agency can demonstrate that it lacks the legal authority to implement a particular BMP.
- **Inadequate Funds:** An agency can demonstrate that it does not have adequate funds (including outside funds) available to implement a particular BMP.

## **Section 4: Legislative Actions**

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### **4.1 Legislative Actions**

#### **4.1.1 Assembly Bill 1420**

AB 1420 “Water Demand Management Measures: Water Management Grant or Loan Funds” amended the Urban Water Management Planning Act, Water Code Section 10610, to require effective January 1, 2009, that the terms of, and eligibility for, any water management grant or loan made to an urban water supplier serving over 3,000 customers or 3,000 acre-feet a year, and awarded or administered by the Department of Water Resources (DWR), State Water Resources Control Board (SWRCB), or California Bay-Delta Authority (CBDA), be conditioned on the implementation of the DMMs described in Water Code Section 10631 (f).

Suppliers must demonstrate that they are implementing DMMs or submit a written plan before a state agency will execute an agreement for funding. DMMs are water conservation measures, programs, and incentives that prevent the waste of water and promote the reasonable, beneficial, and efficient use and reuse of available supplies, more specifically those DMMs in CWC § 10631 (f) (1) (A – N).

DWR equates DMMs with BMPs as identified in the CUWCC MOU and are the same as BMPs. BMPs provide details on what constitutes implementation, implementation coverage, implementation schedule, and measurement or monitoring of the BMP, so BMPs provide more implementation structure than the corresponding DMM.

#### ***AB 1420 Compliance***

Compliance means the full implementation of all Foundational and Programmatic BMPs from Exhibit 1 of the CUWCC MOU.

#### ***“Foundational” BMPs***

The list of “foundational” BMPs is as follows:

- The wholesale supplier “foundational” BMPs are:
  - BMP 3, System Water Audits, Leak Detection and Repair (new BMP 1.4)
  - BMP 7, Public Information (new BMP 2.1)
  - BMP 8, School Education (new BMP 2.2)

- BMP 10, Wholesale Agency Assistance Programs (new BMP 1.3)
- BMP 12, Conservation Coordinator (new BMP 1.1)
- The retail supplier “foundational” BMPs are:
  - BMP 3, System Water Audits, Leak Detection and Repair (new BMP 1.4)
  - BMP 4, Metering with Commodity Rates for All New connections and Retrofit of Existing Connections (new BMP 1.5)
  - BMP 7 Public Information (new BMP 2.1)
  - BMP 8, School Education (new BMP 2.2)
  - BMP 11, Conservation Pricing (new BMP 1.6)
  - BMP 12, Conservation Coordinator (new BMP 1.1)
  - BMP 13 Water Waste Prohibitions (new BMP 1.2)

### ***“Programmatic” BMPs***

“Programmatic” BMPs describe a reasonable minimum level of conservation effort for retail urban water suppliers. Full implementation of these BMPs or alternative programs that are at least as effective as these BMPs is required for eligibility.

- The “Programmatic” BMPs for retail suppliers are:
  - BMP 1, Water Survey Programs for Single-Family Residential and Multi-Family Residential Customers (new BMP 3.1)
  - BMP 2, Residential Plumbing Retrofit (new BMP 3.1)
  - BMP 5, Large Landscape Conservation Programs and Incentives (new BMP 5)
  - BMP 6, High-Efficiency Washing Machine Rebate Programs (new BMP 3.2)
  - BMP 9, Conservation programs for Commercial, Industrial, and Institutional (CII) Accounts (new BMP 4)
  - BMP 14, Residential ULFT Replacement Programs (new BMP 3.4)

Suppliers that are not implementing “Programmatic” BMPs may submit a cost-effectiveness exemption for a specific DMM/BMP with an application for a water management grant or loan. The supplier may submit documentation with an application for a water management grant or



loan that supports implementation of a specific “at least as effective as” measure together with a draft schedule, financing plan and budget.

#### **4.1.2 Assembly Bill 325 (1990)**

AB 325, the Water Conservation in Landscaping Act, required unchartered cities to meet or exceed the landscaping regulations set forth in a Model Water Efficient Landscape Ordinance created by DWR along with stakeholders. Provisions included:

- Calculations of the maximum applied water allowance, applied water use, and total water use
- An ET, or evapo-transpiration adjustment factor (which is used to calculate the landscape water budget) of 0.8
- Submittal of a landscape and irrigation design plan including irrigation and maintenance schedules
- A grading Design Plan
- Soil Analysis
- A certificate of Substantial Completion (once the project has been installed)

#### **4.1.3 Assembly Bill 2717 (2004-2005)**

AB 2717 (Laird 2004) designated the CUWCC to review and update the DWR Model Local Water Efficient Landscape Ordinance. The AB 2717 Task Force developed a series of recommendations that are incorporated into Water Smart Landscapes for California

#### **4.1.4 Assembly Bill 1881 (2006)**

AB 1881 (Laird 2006), the Water Conservation in Landscaping Bill, was signed by the Governor on September 28, 2006. The legislation’s key provisions are listed below.

By January 1, 2010, local landscaping ordinances must be “at least as effective as” the State Model Ordinance (SMO), which is being created by DWR. The new SMO is based on recommendations set forth in the Landscape Task Force report, Water Smart Landscapes for California, and was to be distributed by January 1, 2009.

### ***Proposed SMO Requirements***

- Adopting water conserving rate structures
- Reducing the ET Adjustment factor, used in the calculation of a the water budget, to at least 0.7
- Enforce and monitor compliance with local and Model Ordinances
- Promote the use of recycled water in urban landscapes
- Increase the public's awareness of the importance of landscape water use efficiency and inspire them to action
- Require Smart Controllers
- Adopt and enforce statewide prohibitions on overspray and runoff
- Provide training and certification opportunities to landscape and irrigation professionals

New performance standards and labeling requirements for landscape irrigation controllers and moisture sensors are being developed by the California Energy Commission. The new requirements must be adopted by 2012.

Water purveyors are required to separate landscape water meters for new development with landscaped areas greater than 5,000 square feet by 2008, excluding single-family homes

Common interest development groups (homeowner associations) and municipalities shall not prohibit the use of low water-using plants

## **4.2 Pending Water Use Efficiency Legislation**

On February 28, 2008, Governor Schwarzenegger wrote to the California State Legislature expressing his concerns over California's water crisis in the Sacramento-San Joaquin Delta and laid out some key elements as part of a comprehensive solution. One of these elements was to develop a plan to achieve a 20% reduction in per capita water use statewide by 2020 and encouraged State Leaders to develop legislation to incorporate this goal into statute.

Subsequently on June 4, 2008, the Governor officially declared a statewide drought and issued an executive order taking immediate action to address a dire situation where numerous California communities were forced to mandate water conservation or rationing, and finally, on February 27, 2009, to combat California's third consecutive year of drought, the Governor proclaimed a state of emergency and ordered immediate action to manage the crisis.

To address the Governor's Call and the ongoing water shortage crisis, the State Legislators began shaping framework for several proposed water conservation bills in early spring of 2009. Several water conservation bills have evolved which lay out different methods for achieving the Governor's goal of 20% reduction in urban per capita water use by 2020, statewide.

The two water conservation bills on track and moving swiftly through the legislature are listed below. The authors of Assembly Bill 49 and Senate Bill 261 are discussing the possibility of a merger between the two bills in the FY 2009-2010 legislative session.

#### **4.2.1 Assembly Bill 49**

AB 49 (Feuer/Huffman) "Water Conservation: Agricultural Water Management Planning" would establish water efficiency as a foundational component of water management in California. AB 49 requires increased water use efficiency for both urban and agricultural water users by setting a 20% per capita reduction target for urban use and promoting efficient water management practices for agricultural water use.

#### **4.2.2 Senate Bill 261**

SB 261 (Dutton/Ducheny/Hollingsworth) "Use: Water Management Plans" would require an urban water supplier to develop and implement an urban water conservation plan, including prescribed components, to achieve a 20% reduction in potable water use, as defined, by 2020 and a sustainable level of water use by 2030. Any agency that achieves an extraordinary level of water use efficiency is deemed to have met both standards. Water agencies that are not on track to meet these standards will not be eligible for state funds.

## **Section 5: Water Use Efficiency Activities**

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### **5.1 Regional Drought Campaign**

The Regional Drought Campaign ad-hoc committee is comprised of staff members from each of IEUA's member agencies. The ad-hoc committee was first convened in June 2008 to design a regional public outreach plan that initially included using the "20-Gallon Challenge" Campaign and its five outdoor water saving tips to encourage water reduction. Most recently, the committee has developed the slogan, "*Saving Water...It's the Right Thing to Do,*" to address drought conditions and conservation.

Starting in June 2009, and running through October 18, 2009, the committee chose to air 30-second conservation ads developed and provided by Metropolitan to run in local movie theatres throughout the service area on 71 big screens. It is anticipated that the ads will be seen by approximately 2,000 people each week or about 1.4 million people over the 18 week schedule.

The committee is currently scheduling meetings with local service clubs to discuss drought and ways to reduce water use, and working with Lamar Advertising to use various billboards throughout the service area to advertise the "Save Our Water" campaign developed by the Association of California Water Agencies.

Over the next year, the Regional Conservation Outreach Campaign will include the following activities:

- Ongoing monthly 1/4 page conservation ads in the Inland Valley Daily Bulletin, Champion Newspaper, Fontana Herald News, La Opinion, and Inland Empire Magazine
- Ongoing water wise gardening classes
- Billboards

### **5.2 Water Conservation Ordinances**

On January 13, 2009, Metropolitan's Board authorized ordinance implementation criteria as a prerequisite to participation in three extraordinary conservation programs. The objective of the ordinance prerequisite is to achieve immediate and widespread efficiency practices by retail water users and achieve water savings to contend with recent and potential future water supply reductions to the region. To qualify, an ordinance must include permanent water conservation measures, prohibit certain water uses and irrigation practices, and provide for specific enforcement and penalty mechanisms.

IEUA and member agencies have worked closely together on achieving compliance with Metropolitan’s requirement. Member agencies have updated their ordinances to comply with MWD’s requirements and to prepare for WSAP and IEUA Drought Plan water supply allocations. All IEUA member agencies fully comply with all MWD extraordinary conservation ordinance requirements.


In addition to meeting MWD extraordinary conservation ordinance requirements, many IEUA member agencies have implemented mandatory water use restrictions and activated their water supply shortage contingency plans (Water Reduction Stages) pursuant to the Urban Water Management Planning Act (Section 10632).


### 5.3 Landscape Alliance


The Inland Empire Landscape Alliance is a voluntary collaborative working group that reviews landscaping policies and coordinates implementation providing a unified voice in recommending landscaping policies within the Chino Basin. Their goal is to ensure landscaping ordinances will meet or exceed new standards required under AB 1881. The following is a list of the ongoing Alliance activities:


- Developed a “model” ordinance – the Chino Basin Water Efficient Landscape Ordinance
- Developed signage for Landscape Awareness and Recognition Program
- Host bi-monthly Landscape Alliance Workshops
- Host monthly educational landscape workshops for professionals and residents
- Conduct Water Site Awareness Tours of Landscape Best Management Practices
- Host pervious concrete educational workshops for storm water capture and runoff prevention
- Develop residential site guide for the conversion to California Friendly landscapes


### 5.4 FY 2009-2010 Inland Empire Regional Water Use Efficiency Programs

	<p><b><i>1. Multi-Family High Efficiency Direct Installation Program</i></b></p>	<p>Pre-1992 properties are targeted for replacement of high volume toilets with high efficiency toilets. The product and installation are at no cost to the property owner in order to achieve a strong response.</p>
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	<p><b>2. Phase III Landscape Training and Evaluation program</b></p>	<p>The Landscape Water Evaluation Program provides landscape audits, recommendations and education to commercial, institutional, and industrial customers within the IEUA on water efficient irrigation practices.</p>
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	<p><b>3. Ontario CARES</b></p>	<p>The CARES Program improves eligible Ontario homes located in designated focus areas with landscaping that integrates California Friendly® designs that blend native and drought tolerant plants, trees and groundcover into attractive, low-maintenance sustainable water saving yards.</p>
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	<p><b>4. National Theatre for Children</b></p>	<p>The National Theatre for Children is a live theatre education program that advances water awareness education, and introduces simple water conservation techniques that the students can adapt into their homes.</p>
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	<p><b>5. Garden-In-Every School®</b></p>	<p>Garden-In-Every School educates elementary school-age children, their families, school staff, and community members about wise water usage through the establishment of thematic school gardens that feature drought tolerant plants and efficiency irrigation methods that are aligned with state curriculum standards.</p>
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## 5.5 FY 2009-2010 Metropolitan Water District Regional Water Use Efficiency Programs

	<p><b>1. Commercial and Multi-family Save-A-Buck</b></p>	<p>MWD provides rebates from \$30 to \$3,120 for water saving technologies for indoor and outdoor water use.</p>
	<p><b>2. Residential SoCal Water Smart Program</b></p>	<p>MWD sponsors a region-wide program that offers single family residents rebates for high efficiency toilets and washers, weather based irrigation controllers, rotating nozzles, and synthetic turf.</p>
	<p><b>3. Enhanced Conservation Program</b></p>	<p>The Enhanced Conservation Program provides funding directly to MWD member agencies to encourage new and creative approaches to implement urban water conservation.</p>
	<p><b>4. California Friendly Landscape Irrigation Efficiency Training</b></p>	<p>MWD offers classroom and online training to professional landscapers and the residential community.</p>
	<p><b>5. Community Partnering Program</b></p>	<p>MWD provides co-sponsorships to support water-related and education community projects, programs, and events.</p>

	<p><b>6. Innovative Conservation Program</b></p>	<p>The Innovative Conservation Program provides funding for research and development of new and creative ways to conserve water. The participants include public agencies, individuals and organizations.</p>
	<p><b>7. California Friendly Model Homes for New Construction</b></p>	<p>MWD offers financial incentives to builders who incorporate California Friendly features into new Southern California homes, which include appliances and irrigation devices.</p>
	<p><b>8. Public Sector Program Phase I</b></p>	<p>MWD provided up-front funding to increase water use efficiency at public facilities through indoor/outdoor water audits, enhanced device incentives, and recycled water hook-ups. Phase II is currently suspended.</p>
	<p><b>9. Water Savings Performance Program</b></p>	<p>MWD provides incentives for customized water process and irrigation system improvements for both large landscape water use efficiency and industrial process improvements.</p>
	<p><b>10. Pilot Turf Removal Program</b></p>	<p>Modeled after IEUA's Water Wise Landscape Rebate Program, this program is currently suspended due to the State economic crisis. May in the future provide \$1 per square foot of turf removed for residential and CII customers to assist them in reducing outdoor irrigation.</p>



## Section 6: Regional Conservation Programs Budget

### 6.1 Regional Conservation Programs Budget – FY 2009-2010

<b>BMPs</b>	<b>Annual Coverage Requirements</b>	<b>Programs</b>	<b>Budget</b>	<b>External Funding</b>
<b>1: Utility Operations</b>	Wholesale assistance, <10% loss, >70% volumetric sales, others	<b>CUWCC Dues</b>	\$32,000	
		<b>BMP Support Grant</b>	\$0	
		<b>Subtotal</b>	<b>\$32,000</b>	
<b>2: Education</b>	Public Information, School Education Programs	<b>National Theatre for Children</b>	\$55,000	
		<b>Garden In Every School</b>	\$30,000	
		<b>Program Marketing Materials</b>	\$5,000	
		<b>Water Fair</b>	\$10,000	
		<b>Chino Basin WCD</b>	\$1,500	
		<b>WEWAC</b>	\$1,500	
	<b>Subtotal</b>	<b>\$103,000</b>		
<b>3: Residential</b>	Leak assistance, landscape surveys to 1.5% residential customers; 1.4% HECW market penetration; 75% ULFT/HET saturation	<b>Multi-Family Direct Install (6,473)</b>	<b>\$237,225</b>	<b>\$1,542,775</b>
<b>4: CII</b>	1% reduction	<b>Extra CII Incentives</b>	<b>\$76,000</b>	
<b>5: Landscape</b>		<b>Phase III Landscape Audit</b>		\$100,000
		<b>Recycled Water Landscape Audit Program</b>		\$15,395
		<b>Extra Synthetic Turf Incentives</b>	\$20,000	
		<b>Subtotals</b>	<b>\$20,000</b>	<b>\$115,395</b>
<b>x. WUE Plan</b>	Programmatic BMPs	<b>Business Plan Development</b>	<b>\$50,000</b>	
<b>Total Conservation Budget Funding</b>			<b>\$518,225</b>	<b>\$1,658,170</b>

## **Section 7: Short- and Long-Term Strategies**

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### **7.1 Short-Term Strategies and Recommendations (August 1, 2009 – June 30, 2010)**

The short-term strategies identified below focus on existing regional programs and activities that will be implemented by IEUA and member agencies to ensure eligibility for state grants and loans and compliance with AB 1420 and FY 2007-08 BMP reports. These activities will also seek to leverage all available outside funding opportunities that include MWD Incentive Programs, United States Bureau of Reclamation annual grant programs, and state funds as they may become available. These actions will be implemented over the next fiscal year, along with the development of a Water Use Efficiency Business Plan that will address the implementation of longer-term strategies, goals, and activities that are locally cost-effective and meet compliance with AB 1420, Best Management Practices, and future legislation. These recommendations are as follows:

- Complete existing compliance evaluation for FY 2007-2008 BMP Reports submitted by IEUA member agencies
- Complete revisions to the previously submitted FY 2007-2008 BMP Reports bringing all IEUA members into “full” BMP compliance
- Evaluate compliance options and begin short-term approach for new BMP implementation
- Identify traditional BMP coverage requirements for each member agency and establish water savings targets by sector as determined by the CUWCC
- Submit AB 1420 compliance tables to DWR for pre-approval
- Develop long-term Water Use Efficiency Business Plan
- Monitor ongoing implementation of Best Management Practices
- Monitor Metropolitan Incentive Programs and funding
- Monitor Emerging Technologies
- Update Urban Water Management Plans
- Continue to monitor State and Federal legislation

- Continue to work with Federal and State agencies to identify technical and financial assistance opportunities
- Continue efforts to promote regional collaboration efforts with member agencies
- Promote regional collaboration with other agencies outside of IEUA service area
- Work with member agencies to coordinate conservation programs to optimize regional savings and streamline reporting requirements
- Manage regional water use efficiency programs, incentives, and associated funding
- Provide tools, training, and materials needed for member agencies to implement programs
- Coordinate regional water use efficiency efforts with state agencies, MWD, CUWCC, and other outside agencies
- Promote water conservation in landscape through programs and exhibits that educate and inspire the public.

## **7.2 Long-Term Strategies and Recommendations (July 1, 2010 – June 20, 2015)**

Water conservation, the least expensive new source of water, is critical to our regional water supply future and for meeting growth. Long-term water conservation planning is essential to the implementation of successful, cost-effective programs and provides the mechanism for strategically reaching water savings goals and complying with regulatory statutes. Making sound investments with limited resources could not be more important than it is right now and is essential to the sustainability of our regional programs and our relationship with the public. The recommendations for long-term strategies are as follows:

- Analyze completed Water Use Efficiency Business Plan for planning and program implementation
- Set program schedules for implementation based on available resources
- Implement water conservation program modules to track activity and progress
- Develop regional work plan based on water use efficiency business plan to ensure future compliance with demand reduction targets set for IEUA and its member agencies through the CUWCC, AB 1420, and future legislation

- Finalize 2010 Urban Water Management Plans
- Establish a member agency collaboration for FY 2009-2010 BMP reporting on data collection and report filing
- Prepare and file 2009-2010 CUWCC BMP Reports
- Submit recertification to DWR for AB 1420 compliance
- Monitor and evaluate water use efficiency activities bi-annually to determine effectiveness and modify accordingly
- Update water use efficiency program modules regularly to track progress
- Monitor Metropolitan Incentive Programs and funding
- Monitor Emerging Technologies
- Continue to monitor State and Federal legislation
- Continue to work with Federal and State agencies to identify technical and financial assistance opportunities
- Continue efforts to promote regional collaboration efforts with member agencies
- Promote regional collaboration with other agencies outside of IEUA service area
- Work with member agencies to coordinate conservation programs to optimize regional savings and streamline reporting requirements
- Manage regional water use efficiency programs, incentives, and associated funding
- Provide tools, training, and materials needed for member agencies to implement programs
- Coordinate regional water use efficiency efforts with state agencies, MWD, CUWCC and other outside agencies
- Promote water conservation in landscape through programs and exhibits that educate and inspire the public.

## Section 8: BMP Analysis

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### 8.1 BMP Coverage Analysis

The following is a regional overview of coverage requirements, existing coverage status, and future coverage options for each regional agency to meet full compliance with the CUWCC's BMPs and achieve AB 1420 funding eligibility through the end of 2010.

The California Department of Water Resources (DWR) states in its official "Compliance with AB 1420 Requirements" document that it will "equate the DMMs with the BMPs described in the CUWCC MOU for loan and grant funding eligibility purposes." This is less clear-cut than it at first appears. The CUWCC MOU was revised in December 2008, and the original 14 BMPs were reconfigured into 5 BMPs. However, the last BMP reports that agencies submitted to CUWCC reflect coverage under the old 14 BMPs rather than the new 5 BMPs. Therefore, agencies are required to demonstrate their current compliance either by demonstrating coverage under the old 14 BMPs or by committing to meet the coverage requirements of the new 5 BMPs on a go-forward basis.

There is an additional complication. The last BMP reports that agencies submitted to CUWCC reflect coverage under the old 14 BMPs for 2007 and 2008. The new 5 BMPs took effect for the 2010 reporting year (fiscal or calendar, depending on agency preference). This leaves agencies still responsible for obtaining coverage under the old 14 BMPs for reporting year 2009, although these reports are not to be submitted until the end of 2010 (CUWCC BMP reporting is biannual). CUWCC is considering the option of allowing agencies to report for both 2009 and 2010 under the new BMPs.

The following analysis is organized according to the new 5 BMPs as currently described in the CUWCC MOU, but it also includes coverage requirements and existing coverage status information based on the old 14 BMPs. Following each BMP coverage analysis is a list of recommended actions for achieving full AB 1420 compliance through the end of 2010.

Each analysis contains the following sections:

- **Coverage Requirement:** The threshold of required activity or water savings to achieve coverage under the BMP. Differentiates old and new BMP coverage requirements, when necessary.
- **Current Coverage (2007-2008 BMP Reports):** Coverage status of each agency according to BMP reports filed for the 2007 and 2008 reporting years.

- ***Future Coverage (2009-2010 BMP Reports):*** Projected coverage status of each agency according to BMP coverage criteria in the new MOU. This is often based on estimates using best available data and compliance information, as detailed coverage criteria and reporting requirements for the new BMPs have yet to be determined by CUWCC.
- ***Recommended Actions:*** Actions recommended to achieve full coverage by each agency under the specific BMP.

Additionally, the Flex-Track and Gallons Per Capita Per Day (GPCD) alternative coverage options for the Programmatic BMPs (3-5) are analyzed.

## 8.2 BMP 1: Utility Operations (Foundational)

### 8.2.1 BMP 1.1 Conservation Coordinator (old BMP 12)

#### *Coverage Requirement*

Staff and maintain the position of trained conservation coordinator and provide that function with the necessary resources to implement BMPs.

#### *Current Coverage (2007-2008 BMP Reports)*

All agencies achieved coverage under old the BMP 12.

#### **2007-2008 BMP 12 Coverage Status**

<b>City of Chino</b>	√
<b>City of Chino Hills</b>	√
<b>City of Ontario</b>	<b>ALAEA</b>
<b>City of Upland</b>	√
<b>Cucamonga Valley Water District</b>	√
<b>Fontana Water Company<sup>1</sup></b>	<b>N/A</b>
<b>Inland Empire Utilities Agency</b>	√
<b>Monte Vista Water District</b>	√
<b>San Antonio Water Company<sup>2</sup></b>	√

<sup>1</sup> Not required to report until 2009-2010

<sup>2</sup> Based on 2005-2006 coverage reports; 2007-2008 coverage reports not available

#### *Future Coverage (2009-2010 BMP Reports)*

All agencies plan to maintain a designated conservation coordinator position in the future.

#### *Recommended Actions*

- None required

## 8.2.2 BMP 1.2 Water Waste Prevention (old BMP 13)

### *Coverage Requirement*

**Old BMP 13:** Agency must pass ordinance prohibiting gutter flooding, single pass cooling systems, non-recirculating car wash systems, and non-recycling decorative water fountains in service area.

**New BMP 1.2:** Agency must do one or more of the following:

- a. Enact and enforce an ordinance or establish terms of service that prohibit water waste
- b. Enact and enforce an ordinance or establish terms of service for water efficient design in new development
- c. Support legislation or regulations that prohibit water waste
- d. Enact an ordinance or establish terms of service to facilitate implementation of water shortage response measures
- e. Support local ordinances that prohibit water waste
- f. Support local ordinances that establish permits requirements for water efficient design in new development

### *Current Coverage (2007-2008 BMP Reports)*

Chino, Chino Hills, and Ontario have not achieved coverage under the old BMP 13.

#### **2007-2008 BMP 13 Coverage Status**

<b>City of Chino</b>	<b>N</b>
<b>City of Chino Hills</b>	<b>N</b>
<b>City of Ontario</b>	<b>N</b>
<b>City of Upland</b>	√
<b>Cucamonga Valley Water District</b>	<b>ALAEA</b>
<b>Fontana Water Company</b>	<b>N/A</b>
<b>Inland Empire Utilities Agency</b>	<b>N/A</b>
<b>Monte Vista Water District</b>	<b>E</b>
<b>San Antonio Water Company</b>	√



***Future Coverage (2009-2010 BMP Reports)***

All agencies have or soon will enact one or more of the above coverage requirements through adoption of a conservation ordinance to comply with Metropolitan's ordinance prerequisite for conservation program funding. Additionally, all land-use agencies (i.e., cities) will be compliant as of January 1, 2010, due to adoption of a landscape ordinance that meets AB 1881 requirements.

***Recommended Actions***

- None required

### 8.2.3 BMP 1.3 Wholesale Agency Assistance Programs (old BMP 10)

#### *Coverage Requirement*

Wholesale agencies to provide assistance for retail agency conservation programs, including but not limited to the following:

- a) Financial investments and building partnerships
- b) Technical support
- c) Program management
- d) Water shortage allocations
- e) Non-signatory reporting
- f) Encourage CUWCC membership

#### *Current Coverage (2007-2008 BMP Reports)*

IEUA achieved coverage under old the BMP 10.

#### **2007-2008 BMP 10 Coverage Status**

<b>City of Chino</b>	<b>N/A</b>
<b>City of Chino Hills</b>	<b>N/A</b>
<b>City of Ontario</b>	<b>N/A</b>
<b>City of Upland</b>	<b>N/A</b>
<b>Cucamonga Valley Water District</b>	<b>N/A</b>
<b>Fontana Water Company</b>	<b>N/A</b>
<b>Inland Empire Utilities Agency</b>	√
<b>Monte Vista Water District</b>	<b>N/A</b>
<b>San Antonio Water Company</b>	<b>N/A</b>

#### *Future Coverage (2009-2010 BMP Reports)*

IEUA will maintain coverage.

#### *Recommended Actions*

- None required

## 8.2.4 BMP 1.4 System Water Audits, Leak Detection and Repair (old BMP 3)

### *Coverage Requirement*

Agency shall maintain an active distribution system auditing program and repair identified leaks whenever cost-effective. If unaccounted-for water is greater than 10%, a full system audit is required.

### *Current Coverage (2007-2008 BMP Reports)*

All agencies achieved coverage under the old BMP 3.

#### 2007-2008 BMP 3 Coverage Status

<b>City of Chino</b>	√
<b>City of Chino Hills</b>	√
<b>City of Ontario</b>	√
<b>City of Upland</b>	√
<b>Cucamonga Valley Water District</b>	ALAEA
<b>Fontana Water Company</b>	N/A
<b>Inland Empire Utilities Agency</b>	√
<b>Monte Vista Water District</b>	√
<b>San Antonio Water Company</b>	√

### *Future Coverage (2009-2010 BMP Reports)*

This BMP is in the process of being revised to require agencies to fill in the AWWA Water Audit Software (latest version) and implement more active water loss prevention programs. All agencies plan to maintain compliance with this BMP.

### *Recommended Actions*

- All agency WUE representatives attend CUWCC BMP workshop on AWWA Water Audit Software, preferably accompanied by a member of their operations or maintenance staff
- Begin training on how to complete AWWA Water Audit Software

## 8.2.5 BMP 1.5 Metering with Commodity Rates for All New Connections and Retrofit of Existing Connections (old BMP 4)

### *Coverage Requirement*

All existing unmetered accounts shall be metered and billed by volume of use.

### *Current Coverage (2007-2008 BMP Reports)*

All agencies achieved coverage under old the BMP 4.

#### 2007-2008 BMP 4 Coverage Status

<b>City of Chino</b>	√
<b>City of Chino Hills</b>	√
<b>City of Ontario</b>	√
<b>City of Upland</b>	√
<b>Cucamonga Valley Water District</b>	<b>ALAEA</b>
<b>Fontana Water Company</b>	<b>N/A</b>
<b>Inland Empire Utilities Agency</b>	<b>N/A</b>
<b>Monte Vista Water District</b>	√
<b>San Antonio Water Company</b>	√

### *Future Coverage (2009-2010 BMP Reports)*

All agencies are fully metered and thus will maintain coverage.

### *Recommended Actions*

- None

## 8.2.6 BMP 1.6 Retail Conservation Pricing (old BMP 11)

### *Coverage Requirement*

Agencies must receive over 70 percent of their water fund revenue from volumetric water sales (i.e., not fixed costs).

### *Current Coverage (2007-2008 BMP Reports)*

San Antonio Water Company did not achieved coverage under the old BMP 11.

#### **2007-2008 BMP 11 Coverage Status**

<b>City of Chino</b>	√
<b>City of Chino Hills</b>	√
<b>City of Ontario</b>	√
<b>City of Upland</b>	√
<b>Cucamonga Valley Water District</b>	√
<b>Fontana Water Company</b>	N/A
<b>Inland Empire Utilities Agency</b>	N/A
<b>Monte Vista Water District</b>	√
<b>San Antonio Water Company</b>	N

### *Future Coverage (2009-2010 BMP Reports)*

Fontana Water Company is working on implementing a rate structure that will eventually achieve coverage under this BMP. No information is available concerning San Antonio Water Company's plans to achieve future coverage.

### *Recommended Actions*

- Investigate exemption option for agencies not in compliance

### **8.3 BMP 2: Education Programs (Foundational)**

#### **8.3.1 BMP 2.1 Public Information Programs (old BMP 7)**

##### *Coverage Requirement*

Agencies must maintain an active public information program to promote and educate customers about water conservation. At minimum a public information program shall consist of the following components:

- 1) Contacts with the public (minimum = 4 times per year, i.e., at least quarterly).
- 2) Water supplier contacts with media (minimum = 4 times per year, i.e., at least quarterly).
- 3) An actively maintained website that is updated regularly (minimum = 4 times per year, i.e., at least quarterly).
- 4) Description of materials used to meet minimum requirement.
- 5) Annual budget for public outreach program.
- 6) Description of all other outreach programs.

##### *Current Coverage (2007-2008 BMP Reports)*

All agencies achieved coverage under old BMP 7 through Water Education / Water Awareness Committee (WEWAC), IEUA, MWD, and/or individual agency activities.

##### **2007-2008 BMP 7 Coverage Status**

<b>City of Chino</b>	√
<b>City of Chino Hills</b>	√
<b>City of Ontario</b>	√
<b>City of Upland</b>	√
<b>Cucamonga Valley Water District</b>	√
<b>Fontana Water Company</b>	N/A
<b>Inland Empire Utilities Agency</b>	√
<b>Monte Vista Water District</b>	√
<b>San Antonio Water Company</b>	√

##### *Future Coverage (2009-2010 BMP Reports)*

All agencies will maintain coverage through similar activities.

##### *Recommended Actions*

- Review compliance-based funding levels for public information programs

### 8.3.2 BMP 2.2 School Education Programs (old BMP 8)

#### *Coverage Requirement*

Agencies shall maintain an active school education program to educate students in the agency's service area about water conservation and efficient water use. An agency may participate in a mutual arrangement. At minimum a school information program shall consist of the following:

- 1) Curriculum materials developed and/or provided by agency (including confirmation that materials meet state education framework requirements and are grade-level appropriate).
- 2) Materials distributed to K-6 students. When possible, school education programs will reach grades 7-12 as well.
- 3) Description of materials used to meet minimum requirement.
- 4) Annual budget for school education program.
- 5) Description of all other water supplier education programs.

#### *Current Coverage (2007-2008 BMP Reports)*

All agencies achieved coverage under old BMP 8 through WEWAC, IEUA, MWD, and/or individual agency activities.

#### **2007-2008 BMP 8 Coverage Status**

<b>City of Chino</b>	√
<b>City of Chino Hills</b>	√
<b>City of Ontario</b>	√
<b>City of Upland</b>	√
<b>Cucamonga Valley Water District</b>	√
<b>Fontana Water Company</b>	N/A
<b>Inland Empire Utilities Agency</b>	√
<b>Monte Vista Water District</b>	√
<b>San Antonio Water Company</b>	√

#### *Future Coverage (2009-2010 BMP Reports)*

All agencies will maintain compliance through similar activities.

#### *Recommended Actions*

- Review compliance-based funding levels for education programs

## 8.4 BMP 3: Residential (Programmatic)

### 8.4.1 BMP 3.1 Residential Landscape Water Survey Program (old BMP 1)

#### *Coverage Requirement*

Provide landscape water surveys to an average of 1.5 percent per year of current single-family accounts.

#### *Current Coverage (2007-2008 BMP Reports)*

Chino Hills and Upland have not achieved coverage under old BMP 1.

#### **2007-2008 BMP 1 Coverage Status**

<b>City of Chino</b>	<b>E</b>
<b>City of Chino Hills</b>	<b>N</b>
<b>City of Ontario</b>	<b>ALAEA</b>
<b>City of Upland</b>	<b>N</b>
<b>Cucamonga Valley Water District</b>	<b>ALAEA</b>
<b>Fontana Water Company</b>	<b>N/A</b>
<b>Inland Empire Utilities Agency</b>	<b>N/A</b>
<b>Monte Vista Water District</b>	<b>E</b>
<b>San Antonio Water Company</b>	<b>ALAEA</b>

#### *Future Coverage (2009-2010 BMP Reports)*

The table on the following page provides a provisional cost-benefit analysis for providing landscape surveys to 1.5% of retail agency single-family residential customers. This is a very provisional analysis that does not calculate the present year value of future avoided costs. A more detailed analysis would have to be conducted in order to file for a BMP exemption.

Chino Basin Water Conservation District (CBWCD) is interested in implementing such a program and is working with IEUA and regional agencies to obtain financial assistance.

#### *Recommended Actions*

- Secure cost-effectiveness exemption for all agencies
- Identify near-term Flex-Track and/or GPCD options for future compliance



**BMP 3.1 Coverage Requirements – 2009-2010  
Landscape Surveys**

	<b>1.5% SFR Connections</b>	<b>Total Landscape Survey Cost<sup>1</sup></b>	<b>Lifetime Water Savings (AF)<sup>2</sup></b>	<b>Avoided Cost<sup>3</sup></b>
<b>City of Chino</b>	237	\$47,490.00	34.23	\$20,193.97
<b>City of Chino Hills</b>	290	\$58,074.00	41.86	\$24,694.55
<b>City of Ontario</b>	438	\$87,672.00	63.19	\$37,280.38
<b>City of Upland</b>	222	\$44,427.00	32.02	\$18,891.50
<b>Cucamonga Valley Water District</b>	622	\$124,464.00	89.70	\$52,925.28
<b>Fontana Water Company</b>	614	\$122,883.00	88.56	\$52,253.00
<b>Monte Vista Water District</b>	135	\$27,045.00	19.49	\$11,500.23
<b>San Antonio Water Company</b>	17	\$3,441.00	2.48	\$1,463.20
<b>Totals</b>	<b>2,577</b>	<b>\$515,496.00</b>	<b>371.53</b>	<b>\$170,903.34</b>
		<b>Cost/AF Saved:</b>	<b>\$1,387.50</b>	

<sup>1</sup> \$200/site, conservative estimate

<sup>2</sup> 0.036AF/site/year, equivalent to 32.2 gpd savings; assumes 25% annual savings decay rate (CUWCC BMP Costs & Savings Study, 2005, 2.8.3; BMP 01 Simple Cost-Effectiveness Tool, Version 3, Beta)

<sup>3</sup> \$590/AF, melded MWD Tier 2 Full Service Untreated Rate, July 2009 - June 2010

## 8.4.2 BMP 3.2 Residential Leak Assistance Program (old BMP 2)

### *Coverage Requirement*

**Old BMP 2:** Achieve 75% saturation of high-quality, low-flow showerheads.

**New BMP 3.2:** Provide leak detection assistance to 1.5 percent of current residential units.

### *Current Coverage (2007-2008 BMP Reports)*

All agencies achieved coverage under the old BMP 2.

#### 2007-2008 BMP 2 Coverage Status

<b>City of Chino</b>	√
<b>City of Chino Hills</b>	√
<b>City of Ontario</b>	<b>ALAEA</b>
<b>City of Upland</b>	√
<b>Cucamonga Valley Water District</b>	<b>ALAEA</b>
<b>Fontana Water Company</b>	<b>N/A</b>
<b>Inland Empire Utilities Agency</b>	<b>N/A</b>
<b>Monte Vista Water District</b>	<b>ALAEA</b>
<b>San Antonio Water Company</b>	√

### *Future Coverage (2009-2010 BMP Reports)*

Leak assistance for single-family residential customers would be provided through the landscape survey program described under BMP 3.1 above. Leak assistance for multi-family residential customers can be covered through the existing CBWCD landscape evaluation program and individual agency programs.

#### BMP 3.2 Coverage Requirements – 2009-2010

	<b>1.5% MFR Connections</b>
<b>City of Chino</b>	5
<b>City of Chino Hills</b>	9
<b>City of Ontario</b>	31
<b>City of Upland</b>	30
<b>Cucamonga Valley Water District</b>	13
<b>Fontana Water Company</b>	15
<b>Monte Vista Water District</b>	16
<b>San Antonio Water Company</b>	0
<b>Total</b>	<b>119</b>

***Recommended Actions***

- None required

### 8.4.3 BMP 3.3 High-Efficiency Clothes Washers (old BMP 6)

#### *Coverage Requirement*

**Old BMP 6:** Achieve coverage goal through offering incentives for High-Efficiency Clothes Washers (HECWs).

**New BMP 3.3:** Provide incentives for HECWs with a water factor of 5.0 or less to 0.9 percent of current single-family accounts. Alternatively, demonstrate 1.4 percent annual market penetration during the first ten years after signing the MOU.

#### *Current Coverage (2007-2008 BMP Reports)*

All agencies achieved coverage under the old BMP 6.

#### **2007-2008 BMP 6 Coverage Status**

<b>City of Chino</b>	√
<b>City of Chino Hills</b>	√
<b>City of Ontario</b>	√
<b>City of Upland</b>	√
<b>Cucamonga Valley Water District</b>	√
<b>Fontana Water Company</b>	N/A
<b>Inland Empire Utilities Agency</b>	N/A
<b>Monte Vista Water District</b>	√
<b>San Antonio Water Company</b>	√

#### *Future Coverage (2009-2010 BMP Reports)*

MWD will continue to have rebates available for HECWs that meet the coverage requirement specifications, though the rebate level has decreased significantly. Regional agencies have agreed to increase the rebate level from \$50 to \$110 through the use of local funds.

The following table provides a provisional total and per-year market penetration analysis for individual agencies and the region as a whole. This is a very provisional analysis that only takes into account activity from past incentives. A more detailed analysis would have to be conducted in order to determine full market penetration, including sales of qualifying HECWs that did not receive rebates. According to the analysis, only one agency—Cucamonga Valley Water District—has achieved a 1.4% per year market penetration for the first 10 years since signing the MOU.

***Recommended Actions***

- Hire a consultant to perform a more thorough HECW market penetration analysis
- Identify near-term Flex-Track and/or GPCD options for future compliance

**BMP 3.3 Coverage Requirements – 2009-2010  
High-Efficiency Clothes Washers**

	<b>0.9% SFR Connections</b>	<b>Annual Water Savings (AF)<sup>1</sup></b>	<b>Total HECW Rebates Since 1992</b>	<b>Total SFR and MFR Housing Units in 1992</b>	<b>Market Penetration</b>	<b>Base Year</b>	<b>HECW Rebates Since Base Year</b>	<b>Market Penetration Per Year Since MOU Signing</b>
<b>City of Chino</b>	142	3.93	998	16,241	6%	2006	316	<b>0.8%</b>
<b>City of Chino Hills</b>	174	4.81	1,416	15,152	9%	2006	412	<b>1.0%</b>
<b>City of Ontario</b>	263	7.26	1,359	29,856	5%	2002	1,359	<b>0.8%</b>
<b>City of Upland</b>	133	3.68	1,546	24,765	6%	1997	1,546	<b>1.0%</b>
<b>Cucamonga Valley Water District</b>	373	10.31	2,852	32,141	9%	1997	2,852	<b>1.4%</b>
<b>Fontana Water Company</b>	369	10.17	1,118	34,447	3%	2008	N/A	<b>N/A</b>
<b>Monte Vista Water District</b>	81	2.24	589	9,038	7%	1997	589	<b>1.0%</b>
<b>San Antonio Water Company</b>	10	0.28	105	1,043	10%	2005	54	<b>1.6%</b>
<b>Totals</b>	<b>1,546</b>	<b>42.68</b>	<b>9,983</b>	<b>162,683</b>	<b>6%</b>			

<sup>1</sup> 0.0276AF/unit, industry standard

#### 8.4.4 BMP 3.4 WaterSense Specification Toilets (old BMP 14)

##### *Coverage Requirement*

Provide financial incentives for toilets meeting the current WaterSense Specification (WSS) standard. Must demonstrate a rate of toilet replacements (3.5 gpf or higher) at or above level that would be achieved through a retrofit on resale ordinance, or a market saturation of 75 percent.

##### *Current Coverage (2007-2008 BMP Reports)*

Upland is currently updating the CUWCC database with new toilet numbers, and expects to achieve coverage under the old BMP 14.

##### **2007-2008 BMP 14 Coverage Status**

<b>City of Chino</b>	√
<b>City of Chino Hills</b>	√
<b>City of Ontario</b>	√
<b>City of Upland</b>	N
<b>Cucamonga Valley Water District</b>	ALAEA
<b>Fontana Water Company</b>	N/A
<b>Inland Empire Utilities Agency</b>	N/A
<b>Monte Vista Water District</b>	ALAEA
<b>San Antonio Water Company</b>	√

##### *Future Coverage (2009-2010 BMP Reports)*

MWD will continue to have rebates available for HETs that meet the coverage requirement specifications, though the rebate level has decreased significantly. Regional agencies have agreed to increase the rebate level from \$50 to \$85 through the use of local funds.

The table on the following page provides a provisional saturation analysis for the region as a whole. Not enough reliable historical data is currently available for a saturation study by individual retail agency. The figure of 60,000 toilet retrofits for the entire historical regional program is an estimate based on currently available data.

##### *Recommended Actions*

- Hire a consultant to perform a more thorough HET market saturation study
- Identify near-term Flex-Track and/or GPCD options for future compliance

**BMP 3.4 Coverage Requirements – 2009-2010  
High Efficiency Toilets**

	<b>Pre-1992 SFR Housing Units</b>	<b>Pre-1992 MFR Housing Units</b>	<b>Toilets per SFR Unit</b>	<b>Toilets per MFR Unit</b>	<b>Total Pre-1992 Toilets</b>	<b>Toilet Retrofits Since 1992</b>	<b>Retrofits Minus Natural Replace- ment<sup>1</sup></b>	<b>Natural Replace- ment Since 1992<sup>1</sup></b>	<b>Saturation</b>
<b>City of Chino</b>	12,589	3,652	1.5	1.2	23,266	<i>Accurate per agency historical data currently not available</i>			
<b>City of Chino Hills</b>	12,271	2,881	3.0	2.0	42,575				
<b>City of Ontario</b>	27,708	2,148	2.0	2.0	59,712				
<b>City of Upland</b>	16,601	8,164	2.2	1.3	46,969				
<b>Cucamonga Valley Water District</b>	31,332	809	2.5	1.5	79,544				
<b>Fontana Water Company</b>	25,396	9,051	2.2	1.9	74,145				
<b>Monte Vista Water District</b>	7,196	1,842	2.4	1.6	20,218				
<b>San Antonio Water Company</b>	1,026	17	2.0	4.0	2,120				
<b>Totals/Avg.</b>	<b>134,119</b>	<b>28,564</b>	<b>2.2</b>	<b>1.9</b>	<b>348,549</b>	<b>60,000</b>	<b>57,600</b>	<b>188,070</b>	<b>70%</b>

<sup>1</sup> 4% annual toilet replacement rate, MOU Exhibit 6



## **8.4.5 BMP 3.x Residential Flex-Track Compliance Option**

### ***Alternative Coverage Requirement***

The Residential Flex-Track Compliance Option must achieve equal or greater water savings than Residential BMP coverage requirements.

### ***Flex-Track Options***

Below are the Residential Flex-Track Menu options listed in the MOU. The Flex-Track Compliance Option is not limited to the below programs, but could include any strategy that achieves sufficient water savings. A more detailed analysis is required to perform Flex-Track cost-benefit analysis and will be performed under the long-term WUE plan.

- High bill contact with single-family and multi-family customers
- Educate residential customers about the behavioral aspects of water conservation
- Notify residential customers of leaks on the customer's side of the meter
- Provide bill or surcharge refunds for customers to repair leaks on the customer's side of the meter
- Provide unique water saving fixtures that are not included in the BMP list above
- Install residence water use monitors
- Participate in programs that provide residences with school water conservation kits
- Implement an automatic meter reading program for residential customers
- Refer to the landscape BMP for the Flex-Track menu of landscape measures
- Any other programs that the signatory may implement for residential users that result in documented water savings

### ***Recommended Action***

- Assess Residential Flex-Track Compliance Option for future compliance under the long-term WUE plan

## 8.5 BMP 4: Commercial, Industrial, and Institutional (Programmatic) (old BMP 9)

### *Coverage Requirement*

**Old BMP 9:** Provide surveys to 10% of Commercial, Industrial, and Institutional (CII) accounts, or achieve 10% reduction in CII water usage, within 10 years.

**New BMP 4:** Achieve 0.5% reduction in CII water use by 2010 (end of first BMP reporting period). Up to 50 percent credit will be given for prior activities, as reported through the BMP database.

### *Current Coverage (2007-2008 BMP Reports)*

Chino Hills and Upland have not achieved coverage under the old BMP 9.

#### 2007-2008 BMP 9 Coverage Status

<b>City of Chino</b>	√
<b>City of Chino Hills</b>	N
<b>City of Ontario</b>	√
<b>City of Upland</b>	N
<b>Cucamonga Valley Water District</b>	ALAEA
<b>Fontana Water Company</b>	N/A
<b>Inland Empire Utilities Agency</b>	N/A
<b>Monte Vista Water District</b>	E
<b>San Antonio Water Company</b>	√

### *Future Coverage (2009-2010 BMP Reports)*

The following table provides a provisional cost-benefit analysis for providing CII audits to 0.5% of retail agency's single-family residential customers to meet BMP coverage requirements through 2010, taking into account (when possible) the 50 percent credit for past CII activities. This is a very provisional analysis that does not calculate the present year value of future avoided costs. A more detailed analysis would have to be conducted in order to file for a BMP exemption.

*Recommended Actions*

- Ensure BMP database includes all past CII activity for each agency
- Secure exemption for agencies not in past compliance, as well as for agencies not able to meet near-term future compliance
- Identify near-term Flex-Track and/or GPCD options for future compliance

**BMP 4 Coverage Requirements – 2009-2010  
Commercial, Industrial, and Institutional**

	<b>10% CII Use (AF)</b>	<b>50% Past Credit<sup>1</sup> (AF)</b>	<b>Adjusted 10-Year Required Reduction (10% - Credit) (AF)</b>	<b>1-Year Required Reduction<sup>2</sup> (AF)</b>	<b>CII Audits Required for 1-Year Reduction<sup>3</sup></b>	<b>Total CII Audit Cost<sup>4</sup></b>	<b>Avoided Cost</b>	<b>CII Audits Required for Lifetime Reduction<sup>5</sup></b>	<b>Total CII Audit Cost<sup>4</sup></b>
<b>City of Chino</b>	382	0.9%	350	17.49	92.05	\$40,135.46	\$10,319.23	18.58	\$8,100.31
<b>City of Chino Hills</b>	175	N/A <sup>6</sup>	175	8.77	46.13	\$20,113.37	\$5,171.35	9.31	\$4,059.37
<b>City of Ontario</b>	1209	3.2%	828	41.40	217.88	\$94,997.46	\$24,424.81	43.97	\$19,172.80
<b>City of Upland</b>	334	N/A <sup>6</sup>	334	16.72	87.97	\$38,356.53	\$9,861.85	17.76	\$7,741.28
<b>Cucamonga Valley Water District</b>	686	0.4%	658	32.90	173.18	\$75,506.02	\$19,413.36	34.95	\$15,238.95
<b>Fontana Water Company</b>	683	N/A <sup>6</sup>	683	34.14	179.68	\$78,342.32	\$20,142.60	36.26	\$15,811.38
<b>Monte Vista Water District</b>	269	3.4%	179	8.96	47.15	\$20,555.22	\$5,284.95	9.52	\$4,148.54
<b>San Antonio Water Company</b>	20	6.8%	6	0.32	1.68	\$734.32	\$188.80	0.34	\$148.20
<b>Totals</b>	<b>3,758</b>		<b>2,864</b>	<b>160.69</b>	<b>845.74</b>	<b>\$368,740.69</b>	<b>\$94,806.95</b>	<b>170.69</b>	<b>\$74,420.84</b>
					<b>Cost/AF Saved:</b>	<b>\$2,294.74</b>			<b>\$463.13</b>

<sup>1</sup> 50% of achieved CII reduction under old BMP 9 through 2008

<sup>2</sup> 0.25% reduction - 50% credit = Total Req. Reduction

<sup>3</sup> Required reduction divided by average mean cooling savings of analyst and consultant surveys, assuming implementation rate of 25 percent and annual savings decay rate of 20% (CUWCC BMP Costs & Savings Study, 2.10.5; BMP 09 Simple Cost-Effectiveness Tool, Version 1, Beta).

<sup>4</sup> Fontana Water Company quote: \$436/CII audit + acreage

<sup>5</sup> Assumes annual savings decay rate of 20% (CUWCC BMP Costs & Savings Study, 2.10.5; BMP 09 Simple Cost-Effectiveness Tool, Version 1, Beta).

<sup>6</sup> N/A due to insufficient data from CUWCC BMP database on past credits

## 8.5.1 BMP 4.x CII Flex-Track Compliance Option

### *Alternative Coverage Requirement*

The CII Flex-Track Compliance Option must achieve equal or greater water savings than CII BMP coverage requirements.

### *Flex-Track Options*

Below are the CII Flex-Track Menu options listed in the MOU. The Flex-Track Compliance Option is not limited to the below programs, but could include any strategy that achieves sufficient water savings. A more detailed analysis is required to perform Flex-Track cost-benefit analysis and will be performed under the long-term WUE plan.

- Industrial Process Water Use Reduction
  - Recycling
  - Deionization
- Commercial Laundry Retrofits
- Industrial Laundry Retrofits
- Filter Upgrades
- Car Wash Reclamation Systems
- Wet Cleaning
- Water Audits
- Clean In Place (CIP) Technology
- Waterless Wok
- Submetering
- Pool Covers
- High Efficiency Showerheads
- Faucet Flow Restrictions
- Alternative On-site Water Sources
  - Cooling Condensate
  - Foundation Drain Water
  - Gray Water
  - Storm Water
  - Rain Water
  - Pond and Water Feature Recycling
- Water Efficient Dishwashers
- Hot Water on Demand
- Pre-rinse Spray Valves of 1.2 gpm (gallons per minute) or less
- Central Flush Systems
- Other Measures chosen by the Agency

### *Recommended Action*

- Assess CII Flex-Track Compliance Option for future compliance under the long-term WUE plan

## 8.6 BMP 5: Landscape (Programmatic) (old BMP 5)

### *Coverage Requirement*

- 1) Develop of ETo-based water use budgets for 9 percent of dedicated irrigation accounts.
- 2) Complete irrigation water use surveys for at least 1.5 percent of CII accounts with mixed-use meters by 2010 (end of first BMP reporting period). Agency receive full credit for FY2008 and FY2009 surveys; full credit for pre-FY2007 surveys with follow-up inspections; and half credit for pre-FY2007 surveys without follow-up inspections.
- 3) Implement and maintain a customer incentive program(s) for irrigation equipment retrofits.

### *Current Coverage (2007-2008 BMP Reports)*

Chino Hills, Upland, and San Antonio Water Company have not achieved coverage under the old BMP 5.

#### **2007-2008 BMP 5 Coverage Status**

<b>City of Chino</b>	√
<b>City of Chino Hills</b>	N
<b>City of Ontario</b>	√
<b>City of Upland</b>	N
<b>Cucamonga Valley Water District</b>	ALAEA
<b>Fontana Water Company</b>	N/A
<b>Inland Empire Utilities Agency</b>	N/A
<b>Monte Vista Water District</b>	E
<b>San Antonio Water Company</b>	N

### *Future Coverage (2009-2010 BMP Reports)*

The following table provides a provisional cost-benefit analysis for providing landscape budgets to 9 percent of dedicated irrigation accounts and landscape surveys to 0.75 percent of CII accounts. This is a very provisional analysis that does not include credits for past surveys and does not calculate the present year value of future avoided costs. A more detailed analysis would have to be conducted in order to file for a BMP exemption. Partial to full coverage may be secured through continuation of the Chino Basin Water Conservation District's LEAP Program.

***Recommended Actions***

- Secure exemption for agencies not in past compliance, as well as for agencies not able to meet near-term future compliance
- Identify near-term Flex-Track and/or GPCD options for future compliance

**BMP 5 Coverage Requirements – 2009-2010  
Dedicated Irrigation Meter Landscape Budgets**

	<b>9% Dedicated Irrigation Accounts<sup>1</sup></b>	<b>9% Dedicated Irr. Account Usage (AF)</b>	<b>Total Budget Cost<sup>2</sup></b>	<b>Water Savings (AF)<sup>3</sup></b>	<b>Avoided Cost<sup>4</sup></b>
<b>City of Chino</b>	80	556.11	\$15,930.00	27.81	\$16,405.25
<b>City of Chino Hills</b>	48	307.71	\$9,594.00	15.39	\$9,077.45
<b>City of Ontario</b>	117	728.28	\$23,454.00	36.41	\$21,484.26
<b>City of Upland</b>	33	188.10	\$6,588.00	9.41	\$5,548.95
<b>Cucamonga Valley Water District</b>	178	1,108.80	\$35,622.00	55.44	\$32,709.60
<b>Fontana Water Company</b>	135	884.52	\$27,000.00	44.23	\$26,093.34
<b>Monte Vista Water District</b>	17	56.25	\$3,312.00	2.81	\$1,659.38
<b>San Antonio Water Company</b>	1	5.31	\$180.00	0.27	\$156.65
<b>Totals</b>	<b>608</b>	<b>3,835.08</b>	<b>\$121,680.00</b>	<b>191.75</b>	<b>\$113,134.86</b>
			<b>Cost/AF Saved:</b>	<b>\$634.56</b>	

<sup>1</sup> Includes recycled water accounts

<sup>2</sup> \$200/site.

<sup>3</sup> 5% usage, based on CBWCD LEAP data.

<sup>4</sup> Only includes MWD Tier II; not melded with recycled water rate.

**Mixed-Use Meter Landscape Surveys**

	<b>0.75% Mixed Use (CII) Accounts</b>	<b>Total Cost<sup>1</sup></b>	<b>Lifetime Water Savings (AF)<sup>2</sup></b>	<b>Avoided Cost</b>
<b>City of Chino</b>	13	\$8,788.50	2.09	\$1,234.41
<b>City of Chino Hills</b>	2	\$1,239.00	0.29	\$174.03
<b>City of Ontario</b>	29	\$20,307.00	4.83	\$2,852.27
<b>City of Upland</b>	10	\$7,077.00	1.68	\$994.02
<b>Cucamonga Valley Water District</b>	16	\$11,193.00	2.66	\$1,572.14
<b>Fontana Water Company</b>	3	\$1,816.50	0.43	\$255.14
<b>Monte Vista Water District</b>	8	\$5,570.25	1.33	\$782.38
<b>San Antonio Water Company</b>	0.2	\$141.75	0.03	\$19.91
<b>Totals</b>	<b>80</b>	<b>\$56,133.00</b>	<b>13.36</b>	<b>\$7,884.29</b>
			<b>Cost/AF Saved:</b>	<b>\$ 4,200.56</b>

<sup>1</sup> \$700/site, based on CBWCD LEAP grant.

<sup>2</sup> 5% usage, based on CBWCD LEAP data; assumes 30% annual savings decay rate (CUWCC BMP Costs & Savings Study, 2005, 2.16.3; BMP 05b Simple Cost-Effectiveness Tool, Version 3, Beta).



## 8.6.1 BMP 5.x Landscape Flex-Track Compliance Option

### *Alternative Coverage Requirement*

The Landscape Flex-Track Compliance Option must achieve equal or greater water savings than Landscape BMP coverage requirements.

### *Flex-Track Options*

Below are the Landscape Flex-Track Menu options listed in the MOU. The Flex-Track Compliance Option is not limited to the below programs, but could include any strategy that achieves sufficient water savings. A more detailed analysis is required to perform Flex-Track cost-benefit analysis and will be performed under the long-term WUE plan.

- **Monitor and report on landscape water use**
  - Measure landscapes and develop water budgets for customers with dedicated landscape meters. Provide timely water use reports with comparisons of water use to budget (through bills, electronically, by mail or other means) that provide customers the information they need to adjust irrigation schedules.
  - Measure landscapes and develop water budgets for customers with mixed meters. Provide timely water use reports with comparisons of water use to budget (through bills, electronically, by mail or other means) that provide customers the information they need to adjust irrigation schedules.
  - Establish agency-wide water budget.
  - Establish agency-wide, sector-based irrigation goal to reduce water use, based on seasonality.
  
- **Provide technical landscape resources and training**
  - Upon customer requests, provide landscape irrigation management and landscape design information and resources: provide assistance, answer customer questions, respond to run-off and high-bill calls.
  - Perform landscape & irrigation audits: including irrigation scheduling, plant information, and landscape area measurement.
  - Sponsor, co-sponsor, promote, or support landscape workshops, training, presentations and other technical educational events for homeowners and professionals: design, installation, maintenance, water management (gardeners, contractors, landscape architects/designers, irrigation specialists, irrigation equipment manufacturers and distributors, nurseries, retailers, homeowners associations, property managers, etc.).
  - Establish time-of-day irrigation restrictions.

- **Provide incentives**
  - Establish landscape budget-based rates.
  - Provide incentives for conversions from mixed-use meters to dedicated landscape meters.
  - Provide incentives for installing sub-meters to separate landscape water use.
  - Provide incentives for irrigation equipment upgrades that improve distribution uniformity, irrigation efficiency, or scheduling capabilities (i.e. controllers, emitters, soil moisture sensors, pressure regulators, rain shut off devices, etc.).
  - Provide incentives for the reduction of water use over an irrigated area, or reduction in the size of the irrigated area due to replacement of turf or other high water-using plants with low water-using plants, artificial turf, or permeable surfaces.
  - Provide incentives for conversions from potable to recycled water.
  - Provide incentives for the use of alternative sources of water in the landscape (i.e. graywater, rainwater, cisterns, etc.).
  
- **Participate in local and regional planning and regulatory activities**
  - Collaborate with planning agencies at the local and regional level, other water suppliers in the area and stakeholders in response to state or federal requirements such as the State Model Water Efficient Landscape Ordinance and AB 1881. Participate in the development, review, implementation, and enforcement of requirements for new developments. Provide water use data to planning agencies.
  - Establish or participate in a water conservation advisory committee or other community outreach effort to drive market transformation and exchange information about landscape water conservation with developers, community-based organizations, homeowners associations, residential customers, landscape professionals, educators, other water suppliers in region.
  - Participate in regional efforts: integrated water resource management, watershed management, NPDES permit agencies, etc.
  
- **Develop a holistic approach to landscape water use efficiency**
  - Develop and implement a comprehensive landscape water conservation program for all customers. Target marketing efforts to those most likely to result in benefits to both customer and Agency.
  
- **Other Measures**

***Recommended Action***

- Assess Landscape Flex-Track Compliance Option for future compliance under the long-term WUE plan

## **8.7 GPCD Reduction Option (Programmatic BMPs 3-5)**

### ***Coverage Requirement***

The GPCD Reduction Option must achieve the GPCD goals set out in the MOU. These include the reduction of GPCD to a target of 96.4 percent of the GPCD baseline (average of 1997-2006 levels) by the end of the first reporting period (2010); the highest acceptable GPCD level for this reporting period is 100 percent of baseline GPCD. The GPCD Reduction Option may replace some or all of the Programmatic BMP (BMPs 3-5) coverage requirements.

### ***GPCD Reduction Option Calculations***

The table on the following page provides a provisional calculation of the baseline GPCD for each retail agency (average of 1997-2006 GPCD), the target GPCD for each agency by 2010, and GPCD for 2007-2009 (where available).

### ***Recommended Action***

- Confirm that the GPCD Reduction Option as the best path for regional near-term BMP compliance
- Assess GPCD Reduction Option for future compliance under the long-term WUE plan

**Regional GPCD Reduction Option Calculations – 2009-2010  
GPCD Targets and Near-Term Usage & Baseline GPCD Calculation**

	<b>Baseline GPCD</b>	<b>2010 Target</b>	<b>% of Baseline</b>	<b>2007 GPCD</b>	<b>% of Baseline</b>	<b>2008 GPCD</b>	<b>% of Baseline</b>
<b>City of Chino</b>	249	<b>240</b>	<b>96%</b>	253	<b>102%</b>	243	<b>97%</b>
<b>City of Chino Hills</b>	202	<b>195</b>	<b>96%</b>	213	<b>105%</b>	203	<b>100%</b>
<b>City of Ontario</b>	243	<b>234</b>	<b>96%</b>	234	<b>97%</b>	223	<b>92%</b>
<b>City of Upland</b>	273	<b>263</b>	<b>96%</b>	284	<b>104%</b>	260	<b>95%</b>
<b>Cucamonga Valley Water District</b>	301	<b>290</b>	<b>96%</b>	296	<b>98%</b>	269	<b>89%</b>
<b>Fontana Water Company</b>	296	<b>286</b>	<b>96%</b>	290	<b>98%</b>	276	<b>93%</b>
<b>Monte Vista Water District</b>	207	<b>200</b>	<b>96%</b>	203	<b>98%</b>	218	<b>105%</b>
<b>San Antonio Water Company</b>	439	<b>423</b>	<b>96%</b>	482	<b>110%</b>	451	<b>103%</b>

**Baseline GPCD Calculation**

	<b>1997 GPCD</b>	<b>1998 GPCD</b>	<b>1999 GPCD</b>	<b>2000 GPCD</b>	<b>2001 GPCD</b>	<b>2002 GPCD</b>	<b>2003 GPCD</b>	<b>2004 GPCD</b>	<b>2005 GPCD</b>	<b>2006 GPCD</b>	<b>Baseline (avg.)</b>
<b>City of Chino</b>	280	244	265	254	249	254	240	239	231	235	<b>249</b>
<b>City of Chino Hills</b>	241	203	221	177	207	209	193	202	183	188	<b>202</b>
<b>City of Ontario</b>	257	216	282	257	247	243	231	241	222	230	<b>243</b>
<b>City of Upland</b>	285	255	292	299	277	276	259	258	259	265	<b>273</b>
<b>Cucamonga Valley Water District</b>	323	283	327	323	298	311	290	292	277	284	<b>301</b>
<b>Fontana Water Company</b>	301	271	304	310	295	308	296	306	286	287	<b>296</b>
<b>Monte Vista Water District</b>	229	194	200	220	213	214	210	214	184	193	<b>207</b>
<b>San Antonio Water Company</b>	448	369	475	497	471	435	420	419	409	447	<b>439</b>

## **8.8 Final Recommendations**

- Secure exemptions for past and future BMP compliance, as determined necessary
- Identify near-term Flex-Track and/or GPCD compliance options for BMPs 3, 4, and/or 5
- Prepare and submit AB 1420 Compliance Tables to DWR to obtain pre-approval letter for applying for future State grants or loans
- Hire consultant to develop a regional water use efficiency business plan, including:
  - Identifying cost-effective programming to achieve future regional compliance for Programmatic BMPs
  - Conduct market penetration and saturation studies for HECWs and ULFTs/HETs
  - Assess GPCD and Flex-Track options for BMP compliance