CHAPTER 4 - WATER CONSERVATION PROGRAM

4.1 OVERVIEW

Over the last five years, 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 included significant population increases, unseasonably low rainfall, critically dry conditions, and federally mandated environmental restrictions.

Inland Empire Utilities Agency (IEUA) and its member agencies have recognized the need for developing programs that protect existing water resources so that adequate water supplies will be available for sustainability and future growth. The development of reliable local resources has been critical to maintaining current and future water supplies. The need for regional water supply diversification and an increase in local water resources is the primary force ensuring the reliability of IEUA and its member agencies' water sources.

As the regional wholesale supplier of imported 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 members to facilitate the installation of thousands of water saving devices throughout 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 with IEUA and taken a proactive approach in educating and working with their customers to conserve water.

In light of these circumstances, the IEUA and its member agencies' commitment to conservation has increased over the past ten years as demonstrated through financial investments, policies, authorization of a broad range of conservation programs, expansion of the regional recycled water program, support for legislation, and local ordinance implementation.

Despite this considerable progress, the future still presents uncertainties and significant challenges in maintaining regional water supply reliability. The continued development of new and expanded local resources is vital to sustaining current and future water sources.

IEUA through its member agencies, currently serve approximately 850,000 residents with an anticipated growth rate of up to 50% over the next twenty-five years. Conservation and the efficient use of water is the most cost-effective source of water supply and essential to meet our regions demand, today and for years to come.

4.2 COMMITMENT TO CONSERVATION

Water Conservation programs are a significant part of IEUA's Water Resources Program and, in light of that, IEUA recognized early on that water conservation would play a fundamental role in sustaining and meeting future water supply needs.

In September 1991, IEUA became one of the first water agencies to sign the California Urban Water Conservation Council's (CUWCC) Memorandum of Understanding Regarding Urban Water Conservation (MOU), accepting and supporting to implement a prescribed set of urban water conservation Best Management Practices (BMPs). As one of the original signatories to the MOU in 1991, IEUA's highest conservation priority has been to ensure that good-faith efforts are made on behalf of the member agencies in implementing Best Management Practices, locally.

Over the last nineteen years, IEUA has been and will continue to be committed to developing and implementing many core regional conservation programs that have been designed on the foundation of BMPs, and these programs continue to serve as a key component in the overall regional water resource management portfolio for the region.

Moving forward, IEUA will continue to implement active and code-based BMP related activities utilizing strategies identified in the recently completed long term business plan. IEUA and its member agencies have agreed to implement parallel programs that have complementary approaches. The strategies identified seek to leverage assets through regional funding opportunities, inter-agency partnerships, and grants in order to provide a greater return on the region's investment in conservation and maintain financially sustainable conservation programs.

4.3 LEGISLATIVE AND REGULATORY REQUIREMENTS

The strategies and programs included in this chapter are designed to meet the compliance requirements of the following:

- California Urban Water Conservation Council's Best Management Practices;
- Assembly Bill 1420-Implementation of Demand Management Measures;
- Senate Bill X 7-7-Governor's call for 20% per capita water use reduction by 2020; and
- Future conservation legislation and regulation.

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 voluntary urban water conservation Best Management Practices (BMPs) into the planning and management of California's water resources.

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.

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 the MOU.

The BMPs listed below are incorporated into the MOU:

RETAILER BMPS					
	Foundational				
BMP 1	Utility Operations				
BMP 1.1	Conservation Coordinator				
BMP 1.2	Water Waste Prevention				
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				

	WHOLESALER BMPS					
	Foundational					
BMP 1	Utility Operations					
BMP 1.1	Conservation Coordinator					
BMP 1.3 Wholesale Agency Assistance Program						
BMP 1.4	System Water Audits, Leak Detection and Repair					
BMP 2	Education Programs					
BMP 2.1	Public Information Programs					
BMP 2.2	School Education					

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

Assembly Bill 1420 (Laird/Feuer)

Effective January 1, 2009, the terms of, and eligibility for, a water management grant or loan made to an urban water supplier and awarded or administered by the department, state

board, or California Bay-Delta Authority or its successor agency shall be conditioned on the implementation of the water demand management measures (DMMs).

The Department of Water Resources (DWR) must consider whether an agency is implementing or has scheduled to implement the DMM activities that an agency has identified in its Urban Water Management Plan in evaluating applications for grants and loans financed by specified bond funds.

DMMs are equivalent to 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 (CUWCC BMP activities).

The Water Conservation Act of 2009 (SBX 7-7)

Enacted in November 2009, SBX 7-7 establishes a statewide urban per capita water use reduction of 20% by 2020. This initiative applies to all urban retail water suppliers serving a minimum of 3,000 customers or supplying 3,000 acre-feet or more. Urban retail water suppliers must establish a baseline daily per capita water use (GPCD) and report it in their 2010 urban water management plans by July 1, 2011.

Beginning in 2010, an urban retail water supplier must establish a baseline and continue to implement required demand management measures under AB 1420. On July 1, 2016, SBX 7-7 will repeal AB 1420 and condition eligibility of all state water management grants and loans on meeting or exceeding the 20% water use reduction target by 2020. An interim target of 10% must be met by December 31, 2015.

Assembly Bill 1881 (2006)

AB 1881 (Laird 2006), the Water Conservation in Landscaping bill, requires statewide agencies to update and adopt local landscaping ordinances by January 1, 2010. The adopted landscaping ordinances must be "at least as effective as" the State Model Landscape Ordinance (SMO) developed by the Department of Water Resources.

Key elements in the updated ordinances include: a water budget approach and applies to large, new and redeveloped landscapes which require a permit, reducing the evapotranspiration adjustment factor used in the calculation of a the water budget to at least 0.7, increasing the public's awareness of the importance of water use efficiency in landscaping, requiring Smart Controllers, and adopting and enforcing statewide prohibitions on overspray and runoff.

4.4 WATER SAVINGS GOALS

IEUA, as an urban wholesale water supplier, is not required to develop a baseline or set reduction targets to achieve a 20% reduction in gallons per capita day by 2020 as written under SB X 7-7. However, as the statute does require urban retail water suppliers to comply, IEUA takes the position of preparing a regional approach establishing a baseline and setting targets based on regional demands and in support of its eight retail member agencies that

must comply. All member agencies within IEUA's service area have agreed to the formation of a regional alliance, and will continue to cooperatively participate in developing programs and meeting water conservation goals.

IEUA and its member agencies devised a strategy to meet all compliance requirements in the most cost-effective manner feasible. Below is a chart showing the compliance requirements and associated strategies for each:

Compliance Requirements

Regulatory Agency or State Organization	Requirements	Approach
20x2020	Reduce per capita water use by 10% by 2015 AND Reduce per capita water use by 20% by 2020	By implementing Active Water Use Programs, Policy Initiatives, and increasing Recycled Water Supply, IEUA and its agencies are projected to be on track to meet per capita water reduction goals for both target years.
CUWCC	Reduce per capita water use by 18% by 2018*	IEUA and its agencies will utilize CUWCC's new GPCD option, which offers a per capita methodology to track compliance. This will align with the requirements of 20x2020 as well.
AB 1420	Fulfill BMP commitments	Lines up with actions taken to meet CUWCC BMP compliance.

Compliance Requirements

Although the current goals for each of the regulatory agencies and state organizations vary, all are moving to a Gallons-per-Capita-per-Day (GPCD) savings goal that is in line with the 20x2020 per Capita Water Use Reduction Goals.

Calculating historical water use in Gallons per Capita per Day (GPCD) – The first step taken to calculate the 20x2020 water savings target was to determine historical water use in gallons per capita per day (GPCD). To do this, IEUA analyzed historical retail demand data from 1995 to 2010. The targets set in the 20x2020 Water Conservation Plan do not include recycled water use. Thus, recycled water use was subtracted from historical recycled water production to get retail demands for non-recycled supplies. Next, using historical population over the same time period, the following formula was applied to calculate GPCD.

Non-Recycled Demand (Acre-feet) x 325,851 gallons / population / 365 days

The historical demand and per capita water use data used in this analysis can be found in the table below. The 10 years with the highest average GPCD was chosen to provide the most opportunity for reduction. The 10-year period selected as the baseline is highlighted in blue:

Historical Demand & Selected Baseline Years

			a de serecteu busenne Teu	
			Useable Acre-feet	
		Year	Demand*	GPCD
		1995	170,976	240
		1996	192,633	264
ars		1997	196,409	264
Potential Baseline Years		1998	171,721	226
line		1999	190,474	245
заѕе	ars	2000	217,943	275
ial t	e Ye	2001	203,068	251
ent	Selected Baseline Years	2002	210,078	253
Pot	Заѕе	2003	216,814	256
	ed I	2004	213,378	244
	lect	2005	207,135	234
	Se	2006	222,064	246
		2007	242,251	261
		2008	228,438	243
		2009	220,439	234
		2010	204,702	215

^{*}Does not include Agriculture or Recycled Water

Historical Demand & Selected Baseline

Understanding the methodology used to determine the GCPD, the following chart shows the 20x2020 goals for the IEUA territory:

IEUA 20x2020 per Capita per Day Goals

	Baseline (Based upon average annual water sales years 1999 – 2008)	2015 Target (10% Reduction)	2020 Target (20% Reduction)	
Gallons per Capita per Day	251	226	201	

IEUA 20x2020 per Capita Goals

IEUA expects to <u>exceed</u> the 20x2020 goal for both the 2015 target and the 2020 target. This will be accomplished through regional and local actions utilizing:

- 1. Water Use Efficiency (WUE) Active Programs offering customers a portfolio of programs including cost-effective indoor and outdoor water efficiency measures
- 2. WUE Passive Policy Initiatives including building codes and landscape ordinances
- 3. **Recycled Water Use** reducing demand for potable water by increasing recycled water supply.

The chart below shows the anticipated GPCD reduction from the WUE activities and recycled water supply:

Impact of WUE Activities and Recycled Water Use

	YEAR			
	GPCD Reduction by 2015	GPCD Reduction by 2020		
Projected GPCD reduction from WUE Activities Only	5	13		
Projected GPCD reduction from Recycled Water Use Only	38	45		
TOTAL Projected GPCD Reduction	43	58		
10 Year Baseline GPCD	251			
IEUA GPCD Target	226	201		
IEUA Projected GPCD Achievement	208 193			

The water use reduction goal of 5,157 acre-feet for 2015 and 15,020 acre-feet for 2020 is the GPCD WUE compliance goal presented in acre-feet. As shown, the WUE active and passive initiatives to be implemented under this plan are estimated to achieve much greater savings than the GPCD requirements.

Water Use Reduction Goal Breakdown in Acre-feet (AF)

	2015	2020
Total Reduction Goal	5,157 AF	15,020 AF
Reduction from WUE Active Programs	6,000 AF	11,555 AF
Reduction from WUE Passive Policies	1,662 AF	10,128 AF
Total Reduction from WUE Initiatives	7,662 AF	21,683 AF
% of Goal	149%	144%

As stated, increased recycled water use is the third mechanism to be implemented for demand reduction attainment. Recycled water use projections are shown in acre-feet in the chart below:

Recycled Water Use

	2015	2020
Recycled Water Use (AF)	38,000 AF	50,000 AF

4.5 FIVE YEAR CONSERVATION PLAN

With major challenges ahead, IEUA recognizes that a sound, fact-based plan is needed as a tool to guide water use efficiency program implementation over the upcoming years. IEUA, working in tandem with the eight agencies, created a Regional Water Use Efficiency Partnership Workgroup and initiated an eight-step process that resulted in the creation of a regional *Water Use Efficiency Business Plan* (Plan) (see Appendix L).

The Plan includes the following information:

- The current water supply situation and usage patterns;
- Specific market opportunities;
- A strategy for reaching water savings goals;
- Recommended programs with budgets, water savings, costs, marketing and operational details;
- A program implementation plan and schedule; and,
- A system for tracking and reporting performance over time.

In order to achieve the WUE active programs' goals, listed above, IEUA will implement eight active programs. The programs will deliver water savings through the 2015 and 2020 target years and beyond due to the long life for several of the measures being offered. Below is an overview of the lifetime water savings expected for each of these programs:

Lifetime Water Savings by WUE Active Programs

WUE Active Program	Estimated Lifetime Water Savings (AF)
High Efficiency Nozzle Direct Installation Program	7,500
GeoSmart Landscape Finance Program	766
Save A Buck Program	1,951
SoCalWater\$mart Program	1,945
Smart Controller Direct Installation Program	3,525
Water Budget Program	1,482
Landscape Evaluation Program	118
Multi-family HET Direct Installation Program	4,250
Total	19,592

During the development of The Plan, a water savings model was also built specifically for the IEUA service area. A cost-effectiveness factor was also built into the model, which allowed IEUA and its member agencies to determine the most cost-effective implementation level for the eight selected programs listed above. The Plan is modeled with three levels of budget and productivity assumptions, designed to deliver varying degrees of water savings. These three levels of planning assumptions have been named *Baseline, Moderate, and High*. With current budget limitations, The Plan focuses primarily on the Baseline Plan.

As outlined in The Plan, the Baseline Plan that was selected by IEUA and its member agencies is estimated to save over 14,260 acre-feet of water at a cost to IEUA of \$187 per acre-foot. This falls well below IEUA's avoided cost to purchase water from MWD of \$594 per acre-foot (MWD's Tier 1 rate for untreated water). The avoided purchases equate to \$9.7 Million.

From 2003 – 2009 the water use efficiency programs cost IEUA \$57 per acre-foot. Although the plan projections are less financially beneficial than in these previous years, they are still highly advantageous to IEUA and its member agencies.

The reasons that costs have gone up is that the "easy hits" such ULFTs and HETs have achieved high saturation levels. Moving forward, the landscape market requires more complex products and services and therefore cost more. Another factor impacting cost is reduced funding from outside agencies. MWD and State agencies are no longer offering the level of funding as seen in previous years. Despite these market changes, the economic portfolio for this plan is still extremely favorable to IEUA and its retail agencies.

Below are highlights of the selected Baseline Plan:

Selected Baseline Plan Overview						
Cost per Acre-foot*	\$187 per acre-foot					
Five-Year Water Savings	4,563 acre-feet					
Lifetime Water Savings	14,260 acre-feet					
Avoided Costs	\$9,707,137					
Average Annual Budget	\$480,000					
Five-Year Total Budget	\$2,390,000					

^{*}Includes education & outreach programs

STRATEGY OVERVIEW

The strategy developed for goal achievement:

Target markets with highest water savings opportunity- Comprising 69% of IEUA's total
water demand, landscape usage is the key market to address. Residential landscape water
usage, at 66% of the single family consumption, is clearly the prime opportunity for water
savings.

Landscape water reduction for the commercial market is another viable prospect as well with 57-94% of commercial demand. This includes homeowners associations and commercial properties with large landscape areas.

• Provide program innovation to transform the landscape WUE market - For years, Southern California water agencies have overlooked outdoor water savings opportunities because retrofit technologies and services were expensive and unreliable. Over the last several years, however, there have been major advancements in product designs and performance. By studying the successes and shortfalls of historical landscape programs, IEUA has devised a cost-effective array of programs to capture outdoor water savings.

Currently, smart controllers, high efficiency sprinkler nozzles and turf removal are the most likely measures to yield water savings in landscaped areas. Since these measures are not well known to most customers, they must be persuaded and enticed to participate. This will be accomplished through offers of free products and free installations whenever cost effective.

Once the products are well established in the market, it will no longer be necessary to provide them at water agency expense. Today, however, the customer is unlikely to invest in unknown technologies and services unless the offer is "too good to pass up."

• Secure outside funding for programs- Grants and funding will be pursued whenever possible in order to drive down IEUA's cost per acre-foot of water saved. There are some funding sources available to the proactive and prepared water agency. Funding sources may include Federal grants offered through the United States Bureau of Reclamation (USBR); efficiency grants offered through State agencies such as the Department of Water Resources (DWR) and the State Water Resources Control Board (SWRCB); and regional grants and incentives offered by the Metropolitan Water District of Southern California (MWD).

IEUA, in addition to applying for the competitive offerings of State and Federal agencies, will leverage all MWD incentives and programs available including:

- SoCal Water\$mart Program for single family residential water efficient measures.
- Save A Buck Program for commercial water efficient measures
- Provide sustained education and outreach to customers IEUA will communicate the
 continued and urgent need for water use efficiency and direct customers to available
 programs. This will be accomplished through school education, regional public outreach
 and campaigns, and communication regarding local ordinances.
- Advocate for State and regionally appropriate rules, regulations and ordinances for the
 efficient use of water Legislation requiring enhanced water efficiency product
 performance, as well as implementation of local, state, and national ordinances can
 significantly aid water demand reduction. IEUA and its agencies will advocate for
 responsible passive savings initiatives.

SELECTED PROGRAMS

The selected programs, with their heavy emphasis on landscape opportunities, will integrate the following elements:

- High Efficiency Nozzle Installations Retrofitting pop-up spray heads with high
 efficiency rotary nozzles is a low cost measure and delivers high water savings. The
 saturation rate of high efficiency nozzles is extremely low, and the sheer volume of
 spray heads offers a prime market opportunity.
- Smart Controllers in Combination with High Efficiency Nozzle Installations for Larger Landscape Sites Smart controllers are cost-effective for sites with large landscape areas. By combining controllers with high efficiency nozzles, significant and cost-effective water savings can be achieved.
- **Turf Removal** Although turf removal delivers extremely high water savings in most retrofit projects, it is not yet deemed cost-effective for IEUA to fund a turf removal "direct" incentive program at this time, unless substantially funded through outside

sources. By offering a low interest financing option customers would not be required to pay for up-front costs and should be able to realize substantial water savings. As a result, IEUA will be driving a market transformation—away from high water use turf and towards regional plants with low precipitation rates and minimal irrigation needs.

- Water Budgets A "water budget" is the calculated amount of water a site would require over a particular time period (usually a month, billing cycle, or year) based on the lot size and local weather conditions. A Water Budget Program would educate customers about their water consumption patterns as compared to their budget. The savvy customer is now armed with a tool to better understand their usage and then independently make modifications to reduce their water use. The program is extremely cost effective because the educated customer makes the changes on their own thereby transforming the market.
- Landscape Evaluations Comprehensive landscape evaluations provide customer
 education and information on landscape and irrigation system upgrades specific to
 each individual site. Intended to drive customers to make improvements in their
 landscape irrigation efficiency, the evaluations will direct customers to
 SoCalWater\$mart, Save A Buck or other customer incentives, as applicable.
- MWD's SoCalWater\$mart and Save A Buck Programs These programs are slated to
 continue for at least three to five years, providing IEUA and its member agencies with
 continued outside funding and program administration. Moving forward, IEUA will add
 additional funding to landscape water use efficiency products to provide increased
 customer response.
- Multi-family HET Direct Installation Program This program leverages Department of Water Resources (DWR) grant funding, as well as MWD incentives. The program will continue until the DWR grant and MWD funding ends.
- Education and Outreach Programs IEUA will continue to provide regional educational and outreach programs. Current regional education and outreach programs include the following:
 - National Theatre for Children
 - Garden in Every School
 - Residential Landscape Training Workshops
 - Water Wise Landscape Contest
 - Annual Water Fair
 - Water Education Water Awareness Committee
 - Regional Water Use Efficiency Outreach

No Water Waste Ordinance

On an annual basis, IEUA and its member agencies will review the effectiveness and desirability of regional educational and outreach programs. Budget priority will be given to programs that assist member agencies in meeting state mandates.

4.6 VALUE OF CONSERVATION

Over the last five years, IEUA and the regional retail water agencies have developed a strong partnership and a coordinated approach to conservation management measures that reduce water use. Conservation has multiple benefits, one of which is the value of conservation to the region's ratepayers. Conservation saves money to the ratepayer.

The eight retail agencies, along with IEUA, developed a strong working accord and accomplished the following as a result of the planning process:

- Agreement on a regional strategy to focus on landscape water use efficiency as well as a portfolio of regional programs;
- Completion of a documented plan that provides the implementation steps necessary to launch the programs as well as clearly defined roles/responsibilities between IEUA and the retail agencies; and,
- Commitment from IEUA to administer the regional programs with retail agencies responsible for implementing and possibly augmenting programs within their individual service areas.

Many agencies may need to develop an individual plan for their own agency in order to understand their specific compliance requirements and to address the local needs of their respective service areas.

Figure 4-1 shows the projected cumulative amount of "new" water that will be conserved over the next twenty-five years (not including saved prior to 2005) and how that affects the retail agencies financially. The avoided imported water purchases, at the Tier II rate, are projected to be more than 60,000 AF which is equivalent to more than \$83 million saved.

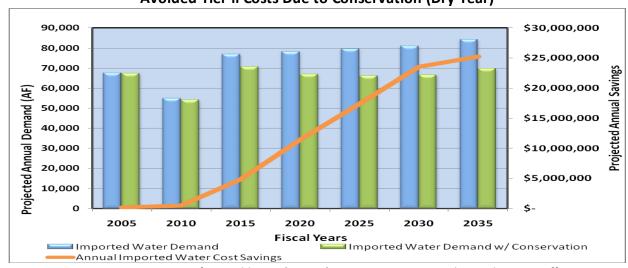


Figure 4-1
Avoided Tier II Costs Due to Conservation (Dry Year)

Source: Conservation projections from Table 2-4 & MWD's Long Range Finance Plan and MWD staff projections

IEUA provides water use demands without conservation estimates, by single-family, multi-family, commercial/industrial, and non-metered uses in Appendix V.

Overall, there are multiple benefits of conservation:

- Ratepayers save money on their water utility bills;
- Reduced urban runoff from improved irrigation efficiency;
- Avoidance of purchasing additional expensive imported water; and
- Environmental benefits

Another regional benefit for maintaining a strong support for conservation is the reduced dependence on imported water from the California Bay-Delta (Bay-Delta). The Bay-Delta is the single most important link in California's water supply system. Two major water supply projects, the State Water Project (SWP) and the Central Valley Project convey Bay-Delta water to more than 22 million Californians and 7 million acres of farmland. The IEUA service area receives a significant portion of its supply (about 30 percent) from the SWP via MWD. Local water supply projects such as conservation help limit the amount of water taken out of the Bay-Delta for water supply, thus enhancing Bay-Delta water supply, water quality and environmental protection. Conservation also helps increase irrigation efficiency which reduces runoff and the associated damage to the asphalt of roads and parking lots that can be very expensive to repair.

Finally, conservation also benefits the region through energy savings. Whenever water moves from one point to another, energy is involved. Electricity to pump water is the single greatest

use of power in the state amounting to about 19 percent of all power used in California. When water deliveries are reduced, significant energy is saved.

Core Strategies for Our Region

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

Regional Principles

There are five key elements to the 2005-2010 water conservation strategy within the Chino Basin:

- 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.

Funding Goal

Currently, the IEUA regional conservation budget is approximately \$442,000 without outside funding. These revenues are collected with the support and cooperation of the local retail water agencies. The sources of revenues for the regional conservation budget:

- Imported Water Surcharge (Currently \$4/AF)
- Retail Meter Revenues (Currently \$90,000)

These local funds are augmented with funding from our partner agencies such as the Metropolitan Water District of Southern California, the California Department of Water Resources, and the U.S. Bureau of Reclamation to expand a budget to well over \$1 million, annually. While having decreased substantially over the last several years, approximately \$2 of outside funding continues to be secured for each \$1 of IEUA regional revenues. Availability of outside funding to augment regional funds has steadily decreased since the economic decline.

4.7 CONSERVATION PROGRAMS TO DATE

Over the last five years, IEUA and the regional retail water agencies have significantly transformed the conservation programs from minimal ultra-low flush (ULF) toilet distribution programs to a series of diverse residential, commercial, industrial, institutional (CII), and school education incentive programs. As mentioned earlier, the cornerstone of IEUA's efforts over the last five years has been the development of programs that meet the requirements of the Memorandum of Understanding (MOU) regarding Urban Water Conservation Best Management Practices (BMP).

However, with recently enacted State legislation in 2008 and 2009 (AB 1420 and SBX 7-7), IEUA's strategy and priorities have realigned to achieve per capita water use reductions of 10 percent by 2015 and 20 percent by 2020 (commonly referenced as "20x2020"). Regional planning for the next five to ten years is dependent upon the savings goals for IEUA member agencies. IEUA recognizes that its regional strategy does not, by itself, assist its member agencies in achieving their own legislatively mandated water use reduction goals. IEUA is, thus, further committed to assisting its retail member agencies in achieving their individual water use reduction goals through regional programs and technical assistance.

2005-2010 Conservation Initiatives

In IEUA's 2005 Regional Urban Water Management Plan (UWMP), water conservation emerged as a significant water management tool in the IEUA service area. It was determined that the best way to meet the five-year conservation goal of 5,000 acre-feet was to "ramp-up" over several years. This would allow IEUA to expand the conservation programs without high up-front costs and achieve the long term desired water savings.

During this five year period, IEUA introduced a variety of new and innovative incentive programs to help achieve the conservation goal. The programs discussed below are

summarized by retail water agency on pages 4-24 - 4-26. These programs will reduce IEUA's demand on imported water sources, meet regulatory requirements to ensure State grant and loan eligibility and will provide a drought-proof resource that is not subject to environmental restrictions and weather conditions.

The water conservation program has been divided into five categories; agency support, residential, commercial/industrial/institutional, landscape, and school education.

Agency Support

In 2003-04, IEUA began a program to provide financial assistance to each of the local retail agencies in an effort to support local BMP implementation. Specifically, IEUA provides an annual grant of \$2,000 to each agency for a BMP related program or project. In addition, IEUA covers 50% of the dues costs for membership in the CUWCC on behalf of the retail member agencies and conducts annual technical workshops that provide member agencies with information related to specific water use efficiency initiatives, programs, BMP implementation and compliance with new statutory requirements.

This is part of IEUA's commitment to BMP #10 (Wholesaler Assistance Programs) which requires a wholesaler to provide financial and/or technical assistance to their local retail agencies to implement BMP's.

Over the past five years, member retail agencies have used their grant monies for a variety of conservation related activities that include purchasing materials for public outreach and education, magnetic conservation signage for vehicles, special events, Kid's Environmental Educational Day Festival, and expansion of school education programs.

IEUA has an annual conservation budget of approximately \$440,000 that is dedicated to supporting the local retail agencies in implementing BMP related programs.

Residential Programs & Accomplishments

Over the last five years, IEUA and its regional partners have introduced a variety of new conservation programs and products that have led to significant accomplishments in water conservation and savings. These new programs have consisted of incentives for homeowners and businesses, landscape efficiency and educational programs. Most of these programs have been very successful and others were introduced as pilots.

The following is a list of activities and programs that were accomplished by IEUA and its member agencies over the last five years:

High Efficiency Toilet Rebate

Launched in FY 2006-2007, there have been approximately 18,645 toilets installed throughout the IEUA service area. Annual water savings from installed devices is estimated to be 792 acrefeet with a lifetime savings of 15,848 acre-feet.

MWD So Cal Water\$mart Residential Rebate Program

IEUA's foundational conservation rebate program for water conserving toilets, irrigation nozzles, high-efficiency clothes washers, irrigation controllers, and synthetic turf installation. Approximately 26,672 devices/rebates were issued under this program over the last five years, for a total annual water savings of 1,680 AF per year and a total lifetime water savings of 19,612 AF.

IEUA Water Softener Rebate Program

On September 15, 2008, Inland Empire Utilities Agency (IEUA) launched its Water Softener Removal Rebate Program. This project is the third phase of the Agency's Salinity Reduction Program that is addressing the impacts of automatic water softeners on IEUA's recycled water. The goal of this project is to demonstrate the transferability of a financial incentive "rebate" for the removal of residential self-regenerating water softeners within the service area of the IEUA. Over the course of the program, 205 water softeners have been removed and \$130,906 in incentives has been paid to program participants. The removal of these devices will save approximately 3.90 acre-feet of water per year in addition to the removal of 47.35 tons of salt.

Multi-Family Toilet Installation Program

Beginning in October 2006, IEUA and member agencies launched a DWR grant funded toilet installation program to perform 22,500 retrofits throughout the service area. To date, there has been 16,817 ultra low flush and high efficiency toilets installed through date, there have been 16,817 ultra-low flush and high efficiency toilets installed through this program. New active savings from this program are approximately 649 acre-feet per year and 13,000 acrefeet over the next twenty years.

Commercial, Industrial, Institutional Programs & Accomplishments

IEUA's service area hosts a diverse range of commercial, industrial and institutional (CII) activities, including numerous service industries (such as hotels and restaurants), manufacturing, agriculture and health care, and a large number of schools and colleges. Each of these sectors present unique opportunities to reduce water consumption. Although commercial accounts comprise only 5% of the total number of accounts in the IEUA area, they use approximately 17% of the overall water demand.

Over the last five years, in cooperation with the local retail agencies and the Metropolitan Water District, IEUA increased its efforts in the Commercial/Industrial/Institutional (CII) sector through the Save-A-Buck Program, offering an array of water saving technologies and through augmenting supplemental funding for those rebates. These rebatable devices include high efficiency toilets, urinals, and washing machines, cooling tower conductivity controllers, pressurized water brooms, pre-rinse spray nozzles, weather-based irrigation controllers, and high efficiency sprinkler nozzles. This program provides an important financial incentive to make it cost-effective for business and industry to participate in programs that reduce water use. For the local retail water agencies, this program helps them meet their CUWCC MOU obligations under BMP #4.

The following is a list of activities and programs that were accomplished by IEUA and its member agencies over the last five years:

Restaurant Pre-Rinse Spray Valves Program

This program was implemented by the California Urban Water Conservation Council over a three phase process, and installed 1,293 spray valves throughout the service area. The annual water savings from installed values will save an estimated 198 acre-feet per year with a lifetime savings of 990 acre-feet.

MWD Region-Wide Public Sector Program

The MWD Public Sector Rebate Program targeted schools, cities and public agencies to fund enhanced incentives for water conserving devices. There were 906 devices installed, representing an annual water savings of 575 AF per year, or a savings of 5,702 AF over the lifetime of the devices. Public agencies located within the IEUA service area received \$2,612,227 in funding.

MWD CII Save-A-Buck Program

IEUA's foundational conservation rebate program for commercial, industrial and institutional sectors. 23,320 devices were processed for rebates with an estimated water savings of 2,579 AF per year and lifetime water savings of 10,704 AF.

California Model Home Program

Metropolitan Water District of Southern California's, Inland Empire Utilities Agency's, and the US Bureau of Reclamation's - California Friendly Home Program offered financial incentives for builders to incorporate water saving devices and California Friendly® features into new Southern California homes, which included irrigation devices and indoor appliances. These new home upgrades have the potential to reduce typical water use by up to 30 percent and represent a valuable asset to homeowners. Through this program, IEUA had seven participating developers that installed 32 devices in the cities of Chino and Fontana. Those devices included high efficiency toilets, high efficiency washing machines, and weather based irrigation controllers totaling \$17,580.00 in rebates.

Pervious Concrete Pilot Program

Three service area members installed pervious concrete in FY 2009-2010, totaling 6,083 square feet in residential neighborhoods in the cities of Ontario and Upland and at the Frontier Project overseen by the Cucamonga Valley Water District. The average price to install the pervious concrete was \$17.10 per square foot of material. Program participants received rebates at the rate of \$2 per square foot of pervious concrete installed, totaling \$12,166 of rebate funds expended.

Landscape Programs & Accomplishments

The semi-arid climate of southern California, with only 15" of average annual rainfall, combined with the lush landscaping aesthetic that predominates in the region, creates a significant water demand for the irrigation of outdoor landscaping. The IEUA service area reflects this demand, where outdoor water use is estimated to be nearly 70% of total demand across all sectors.

Over the last five years, irrigation technology has started to catch up with the water conservation needs of water agencies throughout California. Outdoor irrigation is the single largest water use for residential property owners and most commercial property owners. In California, landscape irrigation is about 60 percent of overall water use and in the IEUA service area landscape irrigation demands are even higher than an average property's annual use. For the local retail water agencies, this program helps them meet their CUWCC MOU obligations under BMP #5.

The following is a list of activities and programs that were accomplished by IEUA and its member agencies over the last five years:

"Regional SmarTimer of Inland Empire" Program (Residential)

In 2006, IEUA and its member agencies launched a weather based irrigation controller distribution program sponsored by the Metropolitan Water District and through a grant from the Department of Water Resources. There were three events held within the service area distributing a total of 375 weather based irrigation controllers with a total annual water savings of 122 acre-feet and a lifetime savings of 1,219 acre-feet.

Weather-Based Irrigation Controller Rebate

Launched in January 2006, this program has provided incentives for up to \$300 per controller through Metropolitan Water District and a grant from the Department of Water Resources. Since program inception, there have been 281 rebates issued with an estimated annual water savings of 92 acre-feet and savings of 950 acre-feet over the life of the devices.

Pilot Water Wise Residential Landscape Rebate Program

Launched in December 2007, this pilot encouraged residents to remove high water consuming lawns and replace them with alternative solutions such as native California plant materials, and permeable surfaces that allow for ground water infiltration and runoff reduction, all of which encourage water use reduction. Qualifying applicants were eligible to receive \$2 per square foot of turf removed with a maximum award of \$2,000. A total of a 136 conversions were completed funding a total of \$240,620 in rebates. The total amount of turf removed was 182,446 square-feet, accounting for an annual potential water savings of approximately 26 acre-feet.

California Friendly Ontario CARES Pilot Program

Launched in 2006, IEUA in partnership with the City of Ontario, Metropolitan Water District, and the U.S. Bureau of Reclamation, implemented a grant funded pilot landscape conversion program that incorporated California Friendly® designs and landscaping into an existing city residential redevelopment program. A total of twenty-four (24) landscape retrofits were completed totaling 28,000 square-feet of California Friendly® sites installed. The total sites combined have a potential to save approximately 2.5 acre-feet per year.

Synthetic Turf Rebate Program. Initiated in July 2007, MWD offered a rebate of \$0.30 per square foot of synthetic turf installed. IEUA added an additional \$0.30 per square foot to the

rebate bringing the incentive up to \$0.60 per square foot. 61,970 square feet of synthetic turf was installed during the year with an annual water savings of 9 acre-feet per year and a life time savings of 87 acre-feet.

Phase II Landscape Audit Program

Launched in 2006, this program evaluated landscape efficiency for 150 commercial sites and 50 large residential sites and was completed in 2007. A total of 739.83 irrigated acres were audited with an estimated water savings potential of 1,339.13 acre-feet per year if all recommendations are implemented.

Phase III Landscape Audit Program

Beginning in 2008, this landscape program was a three year DWR grant funded partnership between IEUA, its members and the Chino Basin Water Conservation District, to provide landscape efficiency evaluations for 250 commercial sites and 50 residential sites. This program was completed ahead of schedule in August 2010, with an estimated water savings potential of 1,450 acre-feet per year if all recommendations are implemented by participants.

These programs all help to provide support to the local retail water agencies in meeting compliance with AB 1420, SB X 7-7 and their CUWCC MOU obligations under BMP #5.

Education and Outreach Programs & Accomplishments

Developed over the last ten years and in cooperation with its local retail agencies, IEUA participates in and offers an array of regional educational outreach activities

These programs all help to provide support to the local retail water agencies to help them meet their CUWCC MOU obligations under BMPs #2, #2.1, and #2.2 (School Education and Public Information).

The following is a list of programs and activities implemented over the last five years and that will continue to be foundational elements of IEUA's regional programs over the next five years.

Garden-In-Every School Program

Established in 2005 and continuing over the last five years, this Program provides an outdoor laboratory and classroom for students through creating a water efficient education program by installing water wise gardens in elementary schools throughout the service area. To date, 36 local elementary schools have participated in the program and received garden grants to install water efficient gardens.

National Theatre for Children (NTC)

Over the last five years, IEUA and member agencies have provided a school education program (K-6th grade) that provides water conservation and environmental education to elementary school level children. NTC is a live interactive theatre performance that advances water and environmental awareness, and introduces simple water conservation practices that students can incorporate into their daily lives at home. Since 2005, this program has reached 143,387 students, teachers, and parents, with 419 performances at 250 schools.

Inland Empire Landscape Alliance (IELA)

The Inland Empire Landscape Alliance was established as a voluntary collaborative working group in which landscaping policies are reviewed and implementation regionally coordinated. The IELA provides a unified voice in recommending landscaping related policies within the Chino Basin, ensuring that landscaping ordinances meet or exceed new standards laid out in AB1881, Identify needs and share information that will support all city and agency landscape efficiency and water conservation development programs, while providing access to funding opportunities including federal, state and local grants that support this effort

MWD Solar Cup

Solar cup is a seven-month program that begins in the fall, in which high school teams totaling approximately 800 students build and race solar-powered boats at Lake Skinner, in Temecula Valley, learning about conservation of natural resources, electrical and mechanical engineering, problem solving and much more. Over the last five years, IEUA has sponsored approximately 12 teams at \$1,500 per team in the annual events.

BMP Compliance Workshops

Through the development of IEUA's Regional Water Use Efficiency Business Plan in 2009, workshops were conducted with IEUA's eight retail member agencies to evaluate current BMP compliance to meet AB 1420 requirements as well as to evaluate and plan for future compliance with SB X 7-7. Through these workshops, members were able to identify where their respective agency stood with current BMP compliance, their reporting requirements to the CUWCC, where deficiencies existed and planning for future regional water use efficiency programs.

IEUA Regional Water Use Efficiency Interim Business Plan (Short-Term)

Working through a Regional Conservation Partnership, IEUA and its eight member agencies developed a Regional Water Use Efficiency Interim Business Plan. The purpose of the Business Plan was to provide an assessment for all IEUA member agencies on current AB 1420 compliance levels, and to provide a work plan for the implementation of short-term initiatives ensuring that all member agencies qualify for state grants and loans.

IEUA Regional Water Use Efficiency Business Plan (5 Year Plan)

An extension of the IEUA "Interim" Plan, the long-term business plan provides more in-depth research and technical analysis on past, present and potential future programs. The plan includes detailed sector analyses 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 purpose of the Long Term Plan was to develop a blueprint to help IEUA and its member agencies comprehensively plan for and implement future water use efficiency activities and programs over the next three to five years.

Rate and Revenue Stability Workshops

In November and December 2010, IEUA hosted two workshops, entitled, "You can have the best of both worlds: Promoting Water Use Efficiency While Enhancing Revenue Stability to provide technical assistance to retail agencies on dealing with the challenges of water management and the balancing act between mandatory water use reductions and the stabilization of revenues. Both workshops examined comparable rate structure strategies that encourage water use efficiency and present pathways to revenue stability.

Water Education Water Awareness Committee (WEWAC)

IEUA continues to participate in WEWAC. Since 1989, WEWAC has promoted school education through teacher and student grants on a variety of water based subjects. IEUA participates with 12 other water agencies in San Bernardino County and Los Angeles County.

Regional Water and Landscape Fair

Held annually in October, the fair is a community awareness partnering event with the Chino Basin Water Conservation District, IEUA and its member agencies created to educate the public on the importance of using water efficiently. Over 400 people usually attend the event where money saving devices, tips and rebate information is provided.

Funding Sources

Funding sources for implementation of projects and programs to achieve the regional goals is a combination of IEUA revenues leveraged with outside funding from MWD, DWR and the Bureau of Reclamation. The 2005 UWMP adopted a funding strategy for the regional agencies that would have a minimal impact on each agency's budget, yet would provide an equitable flow of funding for the regional conservation programs. The revenues are set up to come from different sources so that no one or two large agencies would have to carry the burden for the entire region.

Since 2005, the number of individual revenue sources has decreased due to the economy. Below is a description of each of the funding sources:

- Imported Surcharge IEUA agreed in 2000 to initiate a \$1 surcharge on each acre foot
 of imported water for water conservation. The surcharge is included on all classes of
 imported water (i.e., full service, conjunctive use, and replenishment). Since FY 20052006, the surcharge has been set at \$4 per acre foot and remains unchanged.
- <u>Retail Meter Revenue</u> Metropolitan Water District (MWD) imposes a "Readiness to Serve Charge" on all member agencies to help pay for their CIP programs. To pay these fees to MWD, IEUA collects a charge for each residential and commercial meter in operation in the service area. IEUA attaches .04 cents per meter that flows directly to fund the conservation programs. Annually, this produces about \$90,000 in funding for the regional conservation programs.

Figure 4-2 describes an example of local revenues and the ability to leverage those funds with outside funding. Over the last five years, the regional conservation program budget has

fluctuated between \$440,000 to over \$1,000,000 for program implementation. However, whenever possible IEUA leverages these funds with rebate funding from the MWD and with grants from DWR and the Bureau of Reclamation. In all, IEUA has an annual conservation budget that exceeds \$1.2 million. To achieve water conservation goals outlined in this chapter, total annual spending will need to be increased. Additional funding assistance will be sought as the limited opportunities arise.



Figure 4-2
Historical Local Funding vs. Outside Funding

The retail agencies listed below are members of IEUA's Regional Conservation Workgroup and participate in regional water use efficiency programs administered by IEUA. In addition, many members implement projects and programs within their own local jurisdictions through public outreach, special events and inter-agency activities. Figure 4-3 shows a list of member agency participation in IEUA regional and agency specific locally implemented programs occurring over the last five years.

Figure 4-3
IEUA Service Area – Locally and Regionally Administered Water Use Efficiency Programs

ILOA SEI VICE AI Ea - LO								
	City of Chino	City of Chino Hills	Cucamonga Valley Water District Cucamonga Valley Value District	Fontana Water Company FONTANA WATER COMPANY	Monte Vista Water District	Ontario Municipal Utilities Company ONLARIO UNICIPAL UTILITIES	City of Upland	San Antonio Water Company
Local Programs	· · · · · · · · · · · · · · · · · · ·		».	×				
School Poster Contest		X			X			
Kids Environmental Festival			X					
Kids Poster Contest			х					
Teacher Workshops			Х					
Water Efficient Landscape Tour			Х					
Landscape Recognition Program			Х					
Car Wash Coupon Program			X					
Water Treatment Plant Tours			X					
Water Awareness Day			X	-				
Earth Day Celebration		X	Х		X		X	
"Water the Water" Public Awareness Campaign					X			
Speakers Bureau					X		X	
Annual Water Use "Best Practice" Requirements Project WET	+			 	X	X		
Ontario Cares	+			+		X		
Residential Landscape Classes						^	х	
Site Visits							X	
Utility Bill Analysis							^	
Public Outreach Press Releases/Banners	1	X					x	
Water Fair							X	
Conservation Devices							X	
Public Facility Water Conservation Program							X	
Utility Bill Format Redesign							X	
Residential Indoor/Landscape Water Audits/Surveys		х		х				
School District Indoor & Landscaping Retrofit Program				x				
Water2Save Landscape Watering Pilot Program				х				
Residential Smart Controller Pilot Program				х				
OI Weather Based Irrigation Controller Retrofit Program				X				
								**
Regional Programs							I	
ULF Toilet Exchange	X		X	X		X		
ULF Toilet Giveaway			x			X X		
ULF Toilet Rebate ULFT/HET Rebate		x	^		x	^	х	X
HECW Rebate		X	x		X	X	X	X
WaterWise Landscape Rebate Prog		X	X			x	X	X
Synthetic Turf Rebate	x	X	X			x	X	X
Waterless Urinal Rebate	_ ^	_^	^			x		^
Water Broom Rebate		х				x		
Pre-Rinse Nozzle Rebate						x		
Conductivity Controller Rebate						x		
Rotating Nozzle Rebate						x		
WBIC Rebate						x	х	х
National Theatre for Children	х	х	x	X	X	X	X	
Garden In Every School	x	X	х	X	x	х	x	
Landscape Water Evaluations	х	X	X		X	х	X	х
Region-Wide Public Sector Prog	X	X						
CII Rebate/Save-A-Buck	X	X	X	X	X	х	X	X
Residential Rebates/SoCalWater\$mart	X	X					X	
Regional Multi-Family HET Installation Program	Х	х	х					х
Water Education Water Awareness Committee								
Public Service Announcement Contest	х	X	X	X	X	X	X	
Project WET Workshop	X	X	X	X	X	х	Х	
Quakes Stadium Messaging	Х	X	Х	X	X	х	Х	
EduGrant	X	X	X	X	X	х	X	
Demonstration Garden at LA County Fair	х	X	Х	X	X	x	X	
WEWAC Website	X	Х	X	X	X	х	X	
MWD CA Friendly Landscape Wkshps	X	X						
Residential Landscape Classes		X	X	X	X			
MWD's Solar Cup		X	X				X	
CII Water Audits		X		X				
WaterWise Landscape Contest							X	

4.8 CONSERVATION PROGRAMS 2010-2035

The IEUA will continue to work on the development of new innovative conservation programs over the next twenty years. However, the foundation for future conservation programs will be built upon historical achievements, prior successful programs, available funding, evolving technologies, market transformation, and a coordinated effort on the part of IEUA, its member agencies, and other stakeholders.

Regional Energy Benefits

Water and energy are like two sides of the same coin. They are linked together in almost every scenario. When water use increases, so does energy use. The artificial movement of water is the single greatest use of power in California. As energy becomes more expensive, the cost to move water from one place to another rises, and the need to conserve becomes even greater. When we reduce our water use, even by a small amount, we can reduce our costs for energy; we reduce demand on the regional grid system of energy supply, and reduce air pollution.

In 2003, the Pacific Institute for Studies in Development, Environment, and Security developed a model to show the multiple energy benefits of water conservation. Figure 4-4 provides a look at the energy savings that will occur when we reduce our water use through conservation. Using the model, we find that a reduction of 10,000 acre-feet per year of imported water will save almost 16.8 million kilowatt hours annually.

To put these energy savings into perspective, 16.8 million kilowatt hours is enough to meet the energy needs of about 1,650 average single-family homes for one year.

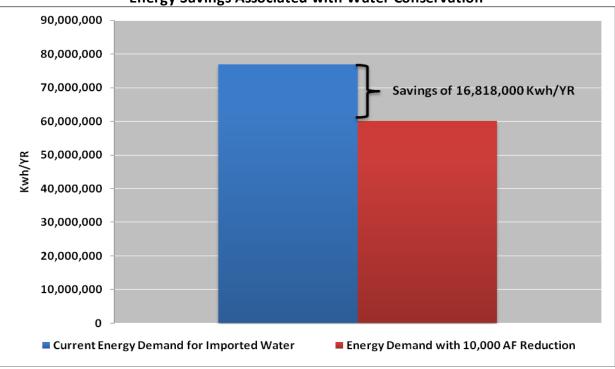


Figure 4-4
Energy Savings Associated with Water Conservation

In addition to energy savings, there are measurable reductions in air pollution as well. For each 10,000 acre-foot reduction in imported water, the IEUA service area will:

- Reduce Carbon Dioxide emissions by 7.9 billion grams per year;
- Reduce Carbon Monoxide emissions by 3.5 million grams per year;
- Reduce Nitrogen Oxide emissions by 1.7 million grams per year;
- Reduce Sulfur Oxide emissions by 165,000 grams per year;
- Reduce Total Organic Gases by 1 million grams per year; and
- Reduce Total Particulates by 362,000 grams per year.

To put the above reductions into perspective, saving 10,000 acre-feet of imported water reduces emissions that are equivalent to taking up to 916 cars off the road.

4.9 ACTION PLAN

Below are a series of proposed actions that IEUA and the agencies of the Regional Water Conservation Partnership Workgroup will follow over the next five years to implement regional water conservation strategy.

- Maintain existing and develop new conservation programs that assist the retail water agencies in complying with new regulatory initiatives enacted under Assembly Bill 1420-Demand Management Measures and Senate Bill X7-7, the Water Conservation Act of 2009 which calls for a Statewide per capita water reduction of 20% by 2020.
- Maintain existing and develop new conservation programs that assist the retail water agencies in complying with the Statewide Memorandum of Understand (MOU) regarding Best Management Practices (BMP).
- Maintain existing and develop new conservation programs that achieve a 20% reduction by 2020, over the next 10 years.
- Monitor emerging technologies
- Continue Monitoring State and Federal legislation.
- Continue to work on identifying Federal and State agency 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.