Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

REGIONAL WATER USE EFFICIENCY
BUSINESS PLAN

FY 2022 - 24


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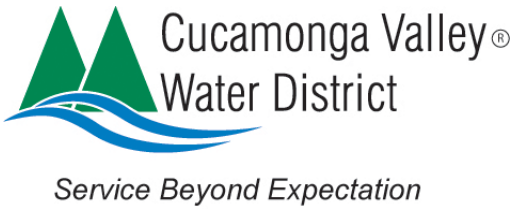
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Letter from the **General Manager**

The challenges of the past several years have emphasized just how interconnected, interdependent, and complex our life in the Inland Empire has become.

We have experienced, and are continuing to face, water supply shortages beyond what we've seen in previous decades. Adding to these circumstances, we are still facing impacts from the ongoing COVID Pandemic, a situation that complicates how we approach our day-to-day business, and that we thought would be in our rear-view mirror by now.

Due to the perseverance and dedication of Customer Agency and IEUA staff, essential water efficiency work, not only continued through these challenges, but accomplished the outstanding achievement of reaching the lowest GPCD ever recorded in the Region.

At our current GPCD level of 160, the Region has nearly halved GPCD water usage since 2009. As well, we have met every State mandate put forth for increased levels of water efficiency and, in doing so, have saved an extraordinary 133,908 acre-feet of water since 2002.

While celebrating these accomplishments, we must also recognize the heightened challenges ahead.

California continues to experience drought conditions, threatening water supplies for the unknowable future. A prolonged timeframe may necessitate an aggressive drought and water shortage response that changes the scope of the Region's Water Use Efficiency Business Plan.

Secondly, the State is in the process of finalizing the most stringent water efficiency objectives ever seen in California—stemming from California's State Framework Legislation passed in 2018. The forthcoming water use efficiency standards require each Customer Agency to meet distinct Water Use Objectives (WUO) for their territory or face significant penalties.

In light of the new State WUOs, Customer Agencies questioned the future applicability of the traditional Regional Water Use Efficiency (WUE) Model, utilized for over a decade. Now carrying the burden of compliance on their shoulders, the Customer Agencies required more governance in the WUE Business Plan design and execution. Additionally, they needed each Agency's costs to line up more directly with the local benefits received.

IEUA understood the Customer Agencies' need for a new approach and, through collaboration and innovation, the Phase 2 WUE Business Plan was finalized. The Phase 2 Plan is intended to position Customer Agencies for regulatory compliance, as well as provide water supply reliability and drought response.

The Plan is designed to be cost-effective and provide Customer Agencies with the equity and program flexibility that they need. It also provides an array of water efficiency programs to support our customers on their journey to achieving a water-efficient lifestyle.

While we're still standing toe-to-toe with many challenges, recent times have revealed much that is good in our Region-- our adaptability, resilience, perseverance, and ability to succeed. I know that, together, IEUA and the Customer Agencies will meet the challenges of today, as we successfully have in the past.

1. Executive **Summary**

The over 875,000 customers -- living and working in the Inland Empire Utilities Agency service area-- are striving to make conservation a way of life. They look to their water agency for the resources and support to fully achieve this goal.

It is the job of Metropolitan Water District (MWD), IEUA, and the Customer Agencies to work together, seamlessly, to provide a fully integrated customer experience.

IEUA is a member agency of the Metropolitan Water District of Southern California (MWD), a wholesale water provider to a service area population of more than 19 million people. MWD provides both turnkey water use efficiency (WUE) programs, such as its SoCal WaterSmart rebate program, and financial contributions towards member agency local WUE programs. IEUA extends these programs to its partnering Customer Agencies along with supplemental programs and funding.

The Customer Agencies serviced by IEUA include the cities of Chino, Chino Hills, Ontario and Upland, Cucamonga Valley Water District (CVWD), Fontana Water Company (FWC), Monte Vista Water District (MVWD), San Antonio Water Company (SAWCo), and West Valley Water District (WVWD).

Through the 20-year partnership between IEUA and the Customer Agencies, customer participation in the water efficiency programs offered by MWD and IEUA has delivered over 133,000 acre-feet of water savings. All the more noteworthy, the water savings were delivered at a combined program cost[1] of $172/AF, well below the cost of imported supply.

These Water Use Efficiency programs continue to operate, delivering cost-effective and durable water use efficiency investments that contribute significantly to achieving a balanced regional water supply portfolio. As our region and the Western United States face extreme water supply challenges, the ability for IEUA to stay in close coordination with the priorities of the Customer Agencies is more critical than ever.

In other words, an acre-foot of water saved in a Customer Agency's service area benefits the entire region, as those same supplies become available for others to use. Past legislation supported this model as well. The Water Conservation Act of 2009 (SBx7-7) allowed water agencies to cooperatively determine and report progress toward achieving water use reduction targets through a regional alliance.

However, the new State Framework legislation requires each Customer Agency to calculate and meet a Water Use Objective specific to their service area. The new legislation has yet to be finalized, but based upon the current State recommendations, **it is projected that three of the Customer Agencies may be required to further reduce customer demand beyond current levels by 2024. In 2030, all agencies may be required to further reduce water use.**

The State's drive for higher water efficiency is an aggressive, but necessary, response to California's escalating drought cycles. The frequency and intensity of water shortages have the potential to destabilize supply reliability. IEUA and the Customer Agencies will do all that is required to ensure adequate water resources now and into the future. A strong Water Use Efficiency Program plays a vital role in safeguarding these supplies.

As the region is gearing up for the challenges that lie ahead, there has been a growing desire from IEUA's Customer Agencies for more balance in the amount they contribute towards IEUA's WUE programs and the benefit they receive. They also seek more opportunities to provide greater input on the design of the WUE programs.

The new State Framework legislation, moved the responsibility solely to the Customer Agencies and prompted the group to take a step back and assess the current business model and determine if there were necessary modifications.

1 "Combined program costs" refer to the dollars invested by MWD and IEUA. Supplemental dollars may have been provided by the Customer Agencies but are not accounted for in this Report.

IEUA has incorporated a two-phase approach to the WUE Business Planning process. Phase 1 addresses the fiscal year 2021/22, and Phase 2 addresses fiscal years 2022/23.

Phase 1 – Maintaining the Status Quo

The FY 2021/22 water efficiency activities will continue operating as status quo, carrying forward current programs and budget levels while Phase 2 planning is executed.

Phase 2 – Vision and Future Regional WUE Program Design

Phase 2 planning aimed to determine the vision and programs offered over the long term. To accomplish this, IEUA and the Customer Agencies collaboratively worked through several complex and sometimes nuanced topics to determine a pathway forward on the design of IEUA's Regional WUE Business Model to align with regional priorities, such as:

- Cost-effective water savings
- Changing California regulations
- Equitable Customer Agency program funding contributions
- Responses to drought conditions and the possible need for extraordinary conservation
- WUE program contributions to water supply reliability

Business Plan Models for Consideration

The planning team developed five business models for group consideration. The five plan options were:

1. Status Quo
2. Status Quo Plus
3. Transactional
4. Pass-through Administration
5. Hybrid (Status Quo/Transactional)

The proposed plan options offer a range of design possibilities. There was the Status Quo plan which, as the name suggests, utilized the same Regional WUE Program construct as in previous years. At the other end of the spectrum was the Pass-Through option, which would have eliminated the IEUA WUE Regional Program. The Pass-Through and Status Quo Plus options were not championed by anyone and so fell off the list.

There was much discussion of the two remaining options. Some agencies preferred the Status Quo approach, while others preferred the Transactional. Specifically, one agency's rate structure did not allow for the agency to be billed for program fees, or they have to absorb the cost.

With a split vote in the remaining two options, the planning group designed a Hybrid Model as a potential compromise. The model incorporated the regional benefit principle for ensuring supply reliability. The planning group also saw the benefit for the region to have both MWD Incentive Programs and IEUA Regional WUE Programs (i.e., Sprinkler Tune-up Program, Smart Controller Installations).

The group decided on a Hybrid model. The Hybrid Business Model allocates program funds into two categories:

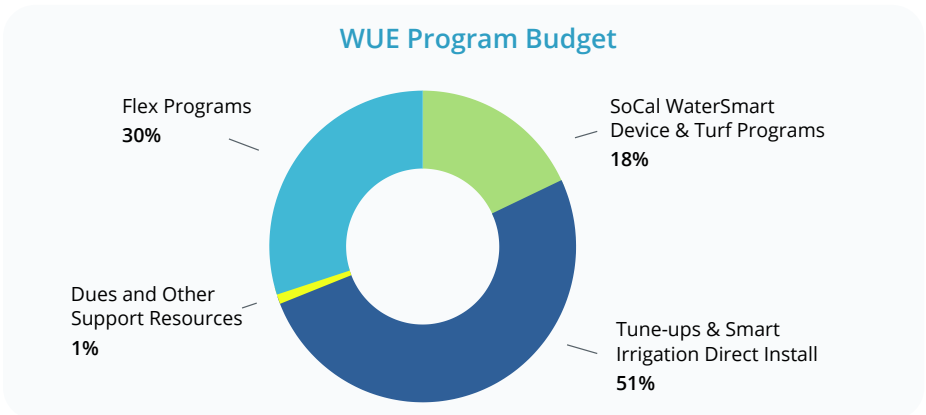
Core Programs are typically cost-effective and provide benefits to all Customer Agencies. Core programs comprise ***70% of the WUE budget.***

Flex Programs offer Customer Agencies the ability to select and fund more beneficial projects for their local territory.
Flex Programs comprise 30% of the WUE budget.

The Flex Program design allows Agencies to offer local programs or add funds to the Regional WUE Programs.

Flex Program funding and Core Regional WUE Programs administered through IEUA will be allocated to each Customer Agency based on their respective percent contribution to the MEU revenue.

In total, the Hybrid Business Model design allocates 81% of the WUE Regional Program budget to each Customer Agency based on their MEU revenue contribution. The new funding format aligns more directly with the respective benefits received by each Agency.



More detailed descriptions of the budget can be found further in this document.

Roles and Responsibilities

As part of the Business Model assessment, the group reaffirmed the ongoing roles and responsibilities for both IEUA and the Customer Agencies. In general, MWD provides administration of Southern California Regional WUE Programs, IEUA provides administration of Inland Empire Regional WUE Programs, and Customer Agencies implement local programs and conduct outreach for all regional and local programs, and facilitate direct communication with their customers. This structure will continue throughout Phase 1 and Phase 2 and will be reassessed after the first year of Phase 2 implementation.

FY2022/23 Programs

For Phase 2 of the WUE Business plan, the group agreed to continue several existing programs deemed to be cost-effective and provide benefits to all Customer Agencies. These Programs will be funded through the Core Program budget. Programs include:

Existing Programs to Remain as Core Programs
SoCal WaterSmart Rebates
Turf Replacement Rebates
Sprinkler System Tune-up
Smart Irrigation Direct Installation (Large and Small)
CalWEP/AWE Membership

Programs that were moved to Flex and are available for Customer Agencies include:

Existing Programs to Remain as Flex Programs
Pressure Regulating Valve Installations
Landscape Evaluations and Audits
Program Marketing Materials Support
Water Fair
School Education
Landscape Workshops
Locally Implemented Programs

FY 2022/23 Projected Costs and Savings Overview

FY 2022/23 Plan Overview	
Program Cost per Acre-foot – IEUA Only*	$357
Program Cost per Acre-foot - MWD and IEUA*	$718
Annual Water Savings	796 acre-feet
Lifetime Water Savings	5,386 acre-feet
Core Program Annual Water Savings	599 acre-feet
Flex Program Annual Water Savings	197 acre-feet
Avoided Costs	$2,730,938
Annual Budget*	$2,541,263
Benefit to Cost Ratio	3.3

**Does not include administrative or operational costs.*

Looking Ahead

The Core plus Flex Business Model will be reviewed after the first year and it is reasonable to expect that the IEUA and the Customer Agencies may seek improvements at this time. There are several other matters that will be front and center in the WUE planning process. These include items such as:

- The final State Framework regulations may impact several Customer Agencies
- Drought response for varying levels of shortage will require Plan modifications
- Customer program water savings shortfalls under the new business model, both locally and regionally, may necessitate changes to the Plan

Prior to implementation of the Core plus Flex Business Model, an Accountability Committee will be assembled. The Committee will conduct baseline analyses and develop benchmarks and other metrics to evaluate program performance. A program dashboard will be created that presents the the most current data in a highly visual, easy-to-digest format. The Committee will use these tools to assess performance and make improvement recommendations to the WUE Working Group.

The WUE Working Group will reassess the Business Plan in one year to identify the Plan's successes and areas of opportunity going forward.

2. Looking **Back**

To effectively evaluate the potential WUE business models under consideration, the planning group decided to take an in-depth look at the Regional WUE Plan format utilized since 2002.

The group reviewed how the WUE Business Model was funded and disaggregated the financial contributions and benefits received per customer and per Customer Agency. The Regional WUE Plan features were assessed to determine what worked well and what areas needed improvement. There was a look-back at the legislative and climate drivers that influenced the plan's design over time, the components of the plan, and its effectiveness in achieving water savings.

What are the Drivers and Components of a Regional Water Use Efficiency Program?

IEUA and the Customer Agencies have implemented a Regional WUE Program since 2002. The Regional WUE Program is designed to meet the goals and provide the solution for the many complex issues impacting the region and the Customer Agencies.

Factors that influence the plan's design include recurring drought conditions, State legislative requirements, and the need to save water cost-effectively while ensuring supply reliability and sustainability. All of these drivers factor into the scope and scale of the Regional WUE Program.

Of the four drivers, two issues particularly drive the goals of the Plan:

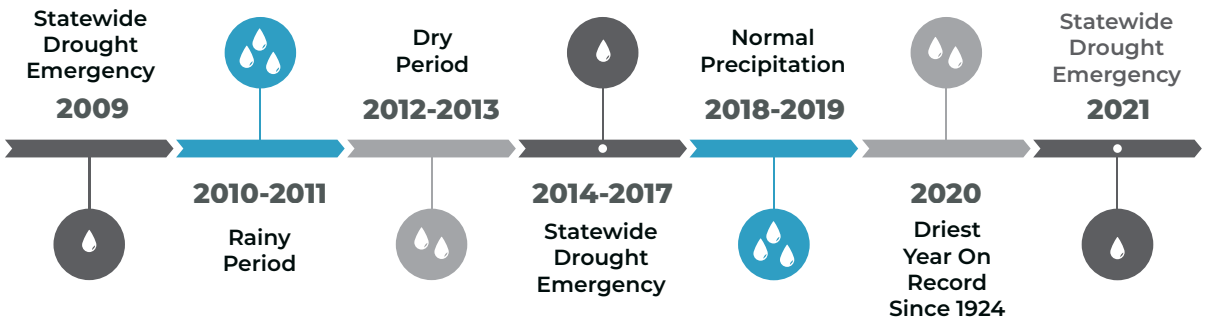
1. the severity and frequency of droughts, and
2. the ever-increasing level of efficiency required by State regulations.

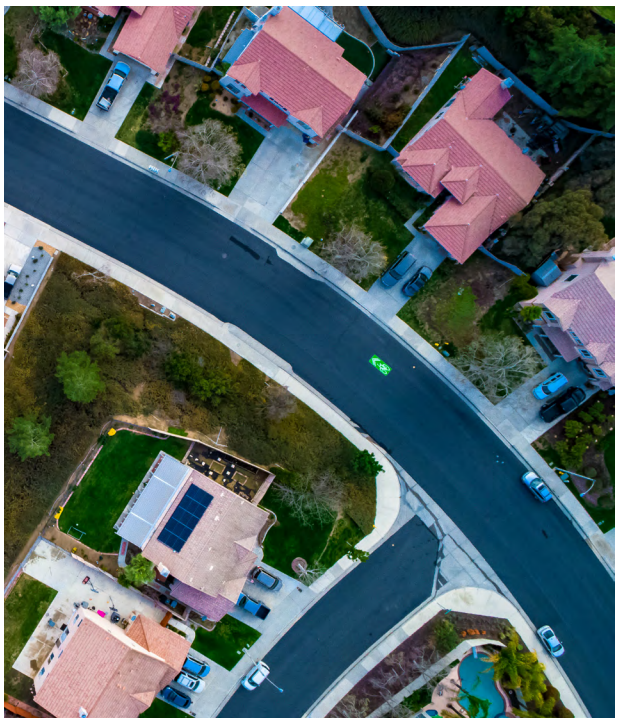
Drought Conditions

As this plan is being written, the current drought is its third year, with 2020-21 being the single driest year since 1924. Experts expect that California will experience a continued drought through at least 2022. Based on the levels of severity, water supply reliability will continue to be a major concern driving the design of the Regional WUE Program.

Below is an overview of the Region's Climate conditions since 2009:

Climate and Droughts Overtime





Regulatory Compliance

In response to the drought's impact on California's water resources, the State has responded by enacting ever-more-stringent water efficiency mandates for urban water suppliers throughout the State. The State requirements drive IEUA and the Customer Agencies to implement effective demand management programs through the Regional WUE Program. The programs, both past and present, are modeled to identify the level of water savings needed to meet State mandates.

The State mandates, shown below, required IEUA and the Customer Agencies to implement effective WUE programs or risk penalties:

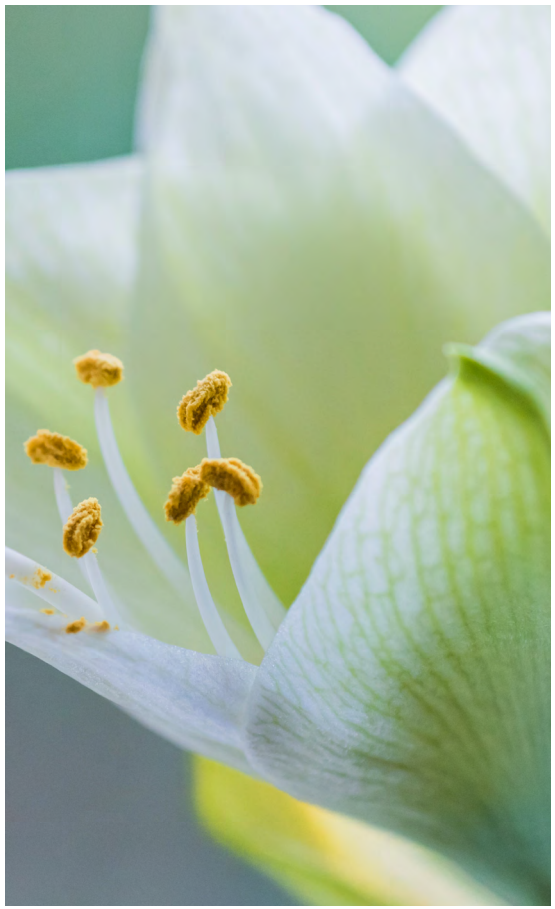
WUE Regulatory Compliance Requirements

Regulatory Statute	Requirements	Accountable Party and Penalty
	2008 - 2016	
Assembly Bill 1420	Mandatory Best Management Practices /Demand Management Measures	IEUA and Customer Agencies Not Eligible for State Water Grant and Loans if not met
	2015 – 2020	
SB X7-7 **20x2020**	Reduce per capita water use by 10% by 2015 AND Reduce per capita water use by 20% by 2020	Customer Agencies and IEUA IEUA as the Regional Alliance Lead Not Eligible for State Water Grant and Loans if not met

Assessing the Regional WUE Program

Before devising the Phase 2 Plan, the planning group identified the required components of a Regional WUE Program. It was necessary to understand these components when evaluating the current model and designing potential alternative models. Below are the components of a Regional WUE Program.

Regional WUE Program Components



Snapshot of IEUA's Program Model Since 2002

The long-standing Regional WUE Program has provided multiple benefits for both the Customer Agencies and their customers over the years. Regional administration lifts the burden of program management off the shoulders of Customer Agencies. Centralized staffing provides several cost efficiencies compared to individually run Customer Agency local programs.

IEUA's current Water Use Efficiency Program operates under the following framework:

- The Program model since 2002 has aligned with the principles of "regional benefit" (see explanation on the right).
- The programs and services are funded through the MEU charges, One Water Connection fees, MWD, and available grants.
- The program's annual budget for fiscal years 2016 to present is $1.6 Million.
- When activity is lower than estimated, IEUA carries forward those dollars and utilizes these encumbrances when demand dictates in subsequent years. This strategy provides some flexibility from year to year.
- IEUA assigns 2.35 FTEs to administer the Program and provides additional overhead services.

REGIONAL BENEFIT

In 1996, MWD, its member agencies, and stakeholders participated in the development of an Integrated Resources Plan (IRP). The process was based upon the premise that a unified and coordinated approach to water resources planning among all water providers is needed to meet the region's future water needs. In essence, the group's philosophy was that an acre-foot saved in one water agency's territory is beneficial to all parties because that saved water becomes available to the entire region.

The IEUA Water Use Efficiency Business Model embraces this same underlying philosophy that working together in a coordinated manner makes sense because water saved in one agency territory benefits all in the region.

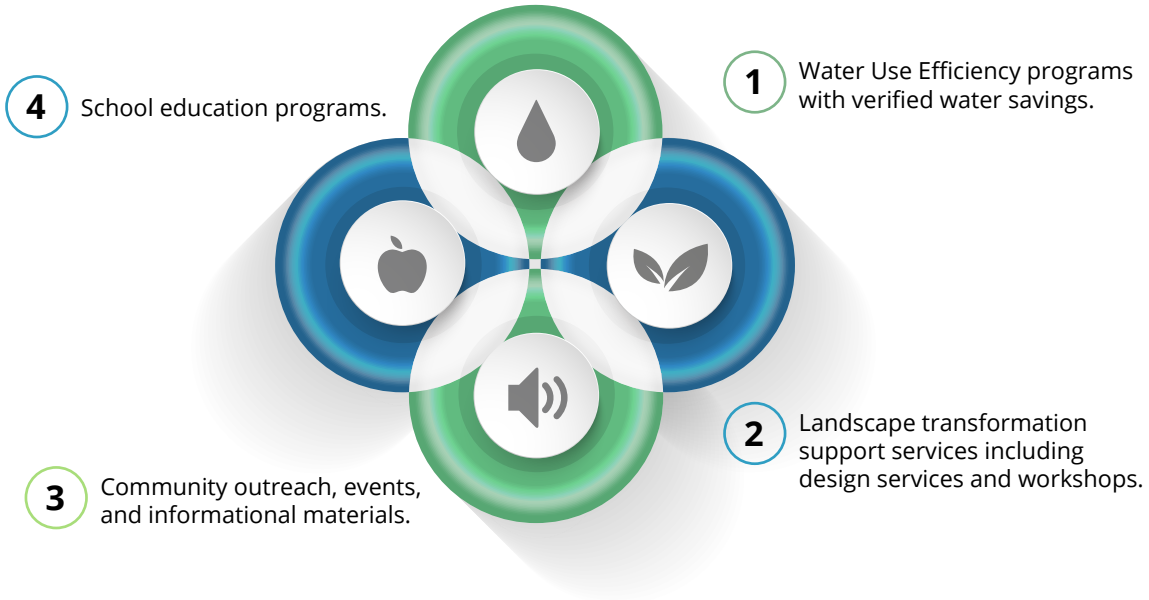
For the purposes of the IEUA WUE Business Plan *Regional Benefit* is defined as:

Supply Reliability- Water saved in one area boosts the overall regional supply.

Cost-effective Water Supply- The cost of water use efficiency is typically less expensive than imported supply. This means that avoided costs from WUE lowers the overall portfolio cost for supply.

The Regional WUE Program is comprised of the following:

1. Water Use Efficiency programs with verified water savings.
2. Landscape transformation support services, including design services and workshops.
3. Multiple K-12 education programs.
4. Community outreach, events, and informational materials.



IEUA's Current Role

IEUA, Customer Agencies, and MWD all play essential and unique roles in supporting the region's overall water efficiency goals. In general, MWD provides administration of Southern California Regional WUE Programs, IEUA provides administration of Inland Empire Regional WUE Programs, and Customer Agencies implement local programs, conduct outreach for all regional and local programs, and facilitate direct communications with their customers.

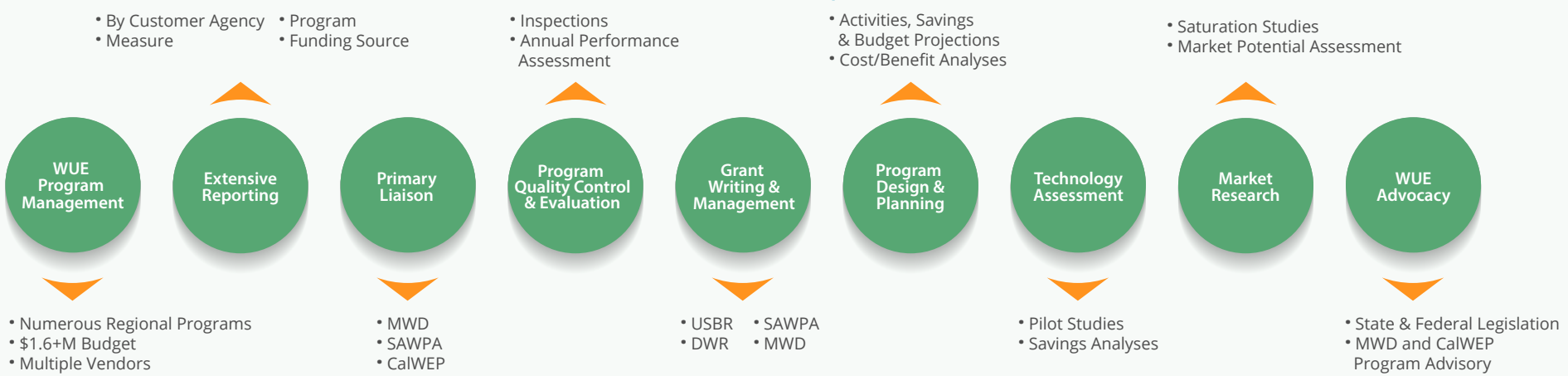
As an MWD Member Agency, IEUA facilitates added rebate dollars for MWD's SoCal WaterSmart Program. In addition, IEUA allocates and administers Member Agency Administered Program (MAAP) funding from MWD for IEUA regional and local programs.

IEUA also administers the Regional WUE Programs on behalf of the Customer Agencies. This currently includes the Sprinkler Tune-up Program, Large and Small Smart Controller Installations, Chino Basin Water Conservation District's Programs (Landscape Evaluation and Audit Programs, Landscape Design Services and Landscape Workshops), and school education programs.

This encompasses a range of duties, including:

- **WUE Program Management** of numerous local and Regional WUE Programs, $1.6+ Million budget, and multiple program vendors.
- **Tracking and reporting** of production and progress towards goals for each program by Customer Agency, measure, program, and funding source.
- **Primary Liaison** with MWD, Santa Ana Watershed Project Authority (SAWPA), and California Water Efficiency Partnership (CalWEP).
- **Program Quality Control and Evaluation,** including inspections and annual performance assessments.
- **Grant Writing and Management** for available funding from Unites States Bureau of Reclamation (USBR), Department of Water Resources (DWR), SAWPA, and MWD.
- **Development of Budgets, Cost/Benefit Analyses, Production Plans, Procedures, and Schedules** for each program.
- **Technology Assessments,** including operation of pilot studies and savings analyses.
- **Market Research** to determine saturation rates and market potential.
- **Water Use Efficiency Advocacy** such as support of State and Federal legislation and MWD and CalWEP Advisory Committees.

IEUA Staff Current Responsibilities



How is the Regional WUE Program Funded?

The current Regional WUE Program is funded through four sources:

1. IEUA's Meter Equivalent Unit (MEU) revenues
2. One Water Connection Fees
3. MWD's Regional WUE Programs and Member Agency Administered Program Funding
4. Other Grants, as available

MEU Rate

The MEU rate was designed to recover the costs of IEUA's Water Resources Program, or WW fund. The WW fund supports IEUA's water resources initiatives, including:

- Managing the delivery of imported water from MWD.
- Implementing water use efficiency programs throughout the IEUA service area.
- Providing water resources planning and stewardship in the region.
- Supporting regional water supply programs such as: recycled water, groundwater recharge, and stormwater management.

The total costs required to support these programs is divided by the total current and projected system-wide MEU count to determine a $/MEU charge that IEUA charges to its Customer Agencies annually.

IEUA's MEU rate was implemented on October 1, 2016 following a 2015 rate study, for which IEUA received stakeholder input during several workshops. The rate is in effect through FY 2024-2025 and any change to IEUA's rate structure would require a new rate study.

METER EQUIVALENT UNIT (MEU): the number of equivalent base meters served by an IEUA Customer Agency. The number of MEU's is determined by multiplying the number of active water accounts of each water meter size by the MEU ratio associated with that meter size. The MEU ratio is established by the assigned base meter size of 5/8-inch.

METER EQUIVALENT UNIT (MEU) CHARGE: an annual basic charge imposed by the IEUA for each MEU served by an IEUA Customer Agency which exists as of January 1 of each year. The charge is established at a level which yields revenues sufficient to recover the Program Charge, costs incurred for the Water Conservation Program, which also include the Conservation and Drought Charges, and could include a portion of the Readiness-to-Serve charge by MWD.

One Water Connection Fees

A connection fee is imposed on new connections to recover a fair and equitable share of the costs of capacity for IEUA's infrastructure. IEUA's connection fee is based upon the amount of expected future users, the value of the existing system, and the value of the future system. A fundamental tenet in adopting these connection fees is: "growth pays for growth." This means that the costs associated with building or maintaining the excess capacity to serve new customers ultimately should be borne by those new users who benefit from this available capacity.

Metropolitan Water District MAAP Funding

MWD provides each member agency with a budget allocation for locally administered programs. The Member Agency Administered Program (MAAP) funding is allocated based upon the percentage of imported water purchases from MWD. IEUA's current MAAP allocation is $715,000 per 2-year budget cycle. As such, roughly $357,500 is estimated for use per year.

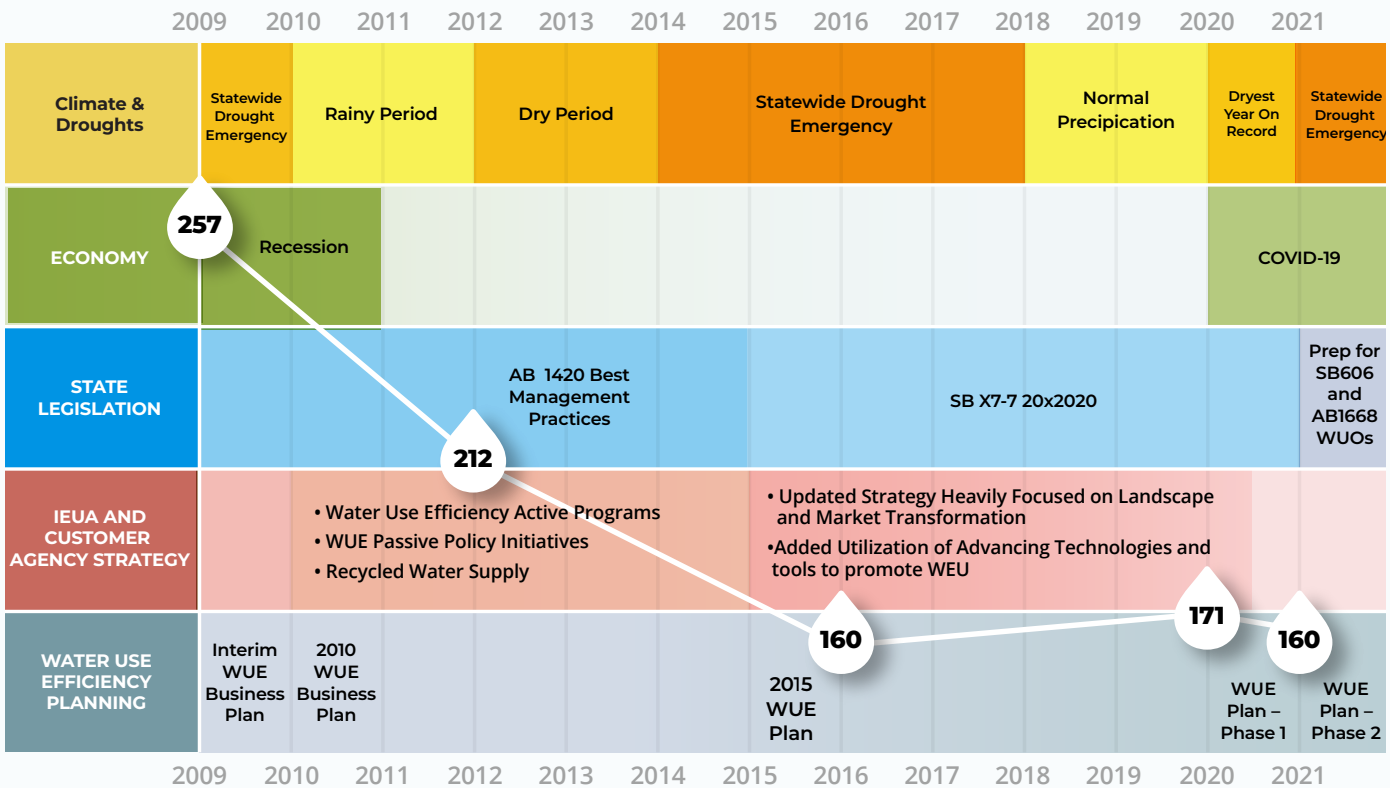
Other Grants, as available

IEUA continually works to secure grants from agencies such as the Department of Water Resources (DWR) and the United States Bureau of Reclamation (USBR). Currently, IEUA is receiving grant funds from the DWR Proposition 1 Round 1, Integrated Regional Water Management Grant Program through Santa Ana Watershed Project Authority's (SAWPA) One Water One Watershed Program. These funds are being used to offset IEUA's budget for landscape measures rebated and installed through the various Regional WUE Programs.

How Did the IEUA Regional WUE Program Perform Over the Years?

IEUA's performance is measured by its ability to meet State regulatory requirements, lower Gallons per Capita per Day (GPCD) water use, and cost-effectively achieve results.

The Impact Events chart below illustrates the effects of environmental, economic, and IEUA activities from 2009-2021, as it relates to the regional GPCD. Over the course of this timeframe, IEUA and the Customer Agencies recognized the need for a formal planning process that set goals and established the strategies to fulfill these goals. This created a process to, over time, evolve strategies and innovations as the needs change and technologies advance. It helped ensure that legislative mandates were met and provided a means to respond to recurring droughts.



As the chart illustrates, there was a brief bounce back in GPCD for 2020. This is likely due to post-drought fatigue, with some impact due to COVID.

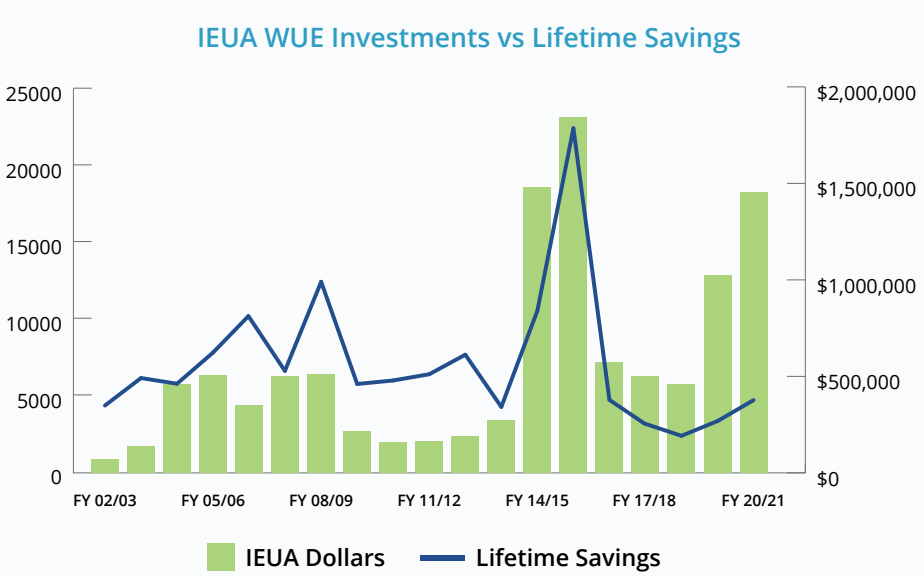
Despite the challenges of multiple drought cycles, a recession, and COVID, the region achieved several significant accomplishments:

- 133,908 lifetime acre-feet of water saved
- Reduced per capita water use from 257 in 2009 to 160 in 2021 – a 38% reduction
- Met all regulatory compliance mandates
- Exceeded State mandate for 20% reduction by 2020 by additional 15% - target was 201 GPCD, achieved 171 GPCD.

The Regional WUE Program's strength and planning efforts were fundamental to achieving these successes.

Water Savings vs. IEUA Investment

IEUA and the Customer Agencies have been investing in water use efficiency initiatives since FY 02/03. The budget has grown from approximately $70,000 in FY 02/03 to an expected $2.5 million investment for FY 22/23. **With an investment of just over $10 Million, the region achieved lifetime water savings of 133,908 acre-feet.**



Starting in FY 17/18, there is a noticeable difference in acre-feet savings compared to IEUA investment. Post-drought, MWD dramatically reduced its budget for the Turf Replacement Program. Additionally, customers did not seek participation in this program, likely due to post-drought fatigue and that most first adopters participated in previous years.

This resulted in a shift in funding percentages, with IEUA taking on the predominant share of funding, making the cost-effectiveness significantly lower for IEUA than in previous years. In addition, two locally implemented programs (Pressure Regulating Valve and the Small Controller Upgrade Installation Program) have higher costs per acre-feet saved. Lastly, MWD has decreased MAAP reimbursement for several IEUA Regional Programs, resulting in more costly programs.

Fiscal Year	Total Annual Savings	Total Lifetime Savings	Total IEUA Investment
FY 02/03	340	4,306	$69,283
FY 03/04	369	6,098	$138,123
FY 04/05	317	5,729	$460,676
FY 05/06	400	7,761	$507,413
FY 06/07	588	10,266	$348,514
FY 07/08	478	6,568	$500,276
FY 08/09	963	12,376	$509,617
FY 09/10	502	5,712	$213,265
FY 10/11	641	5,940	$157,325
FY 11/12	611	6,348	$164,428
FY 12/13	695	7,621	$189,256
FY 13/14	486	4,216	$271,615
FY 14/15	1,196	10,484	$1,480,103
FY 15/16	1,946	22,387	$1,843,659
FY 16/17	427	4,676	$571,455
FY 17/18	383	3,135	$497,997
FY 18/19	285	2,331	$458,536
FY 19/20	408	3292	$1,021,770
FY 20/21	546	4659	$1,451,319
Total	**11,584**	**133,908**	**$10,854,630**

Cost-Effectiveness

Cost-effectiveness can be described as the avoided cost to purchase the next increment of water. The significance of the avoided costs is that for each acre-foot of water savings, IEUA can avoid the variable costs, which include power costs, purchasing MWD water and, potentially, development of new water sources. Typically, IEUA uses MWD's Tier 2 rate for treated water, which has ranged from $431 per acre-foot in 2002 to the current rate of $1,146 per acre-foot. **This equates to a highly cost-effective rate of $81 per acre-foot.**

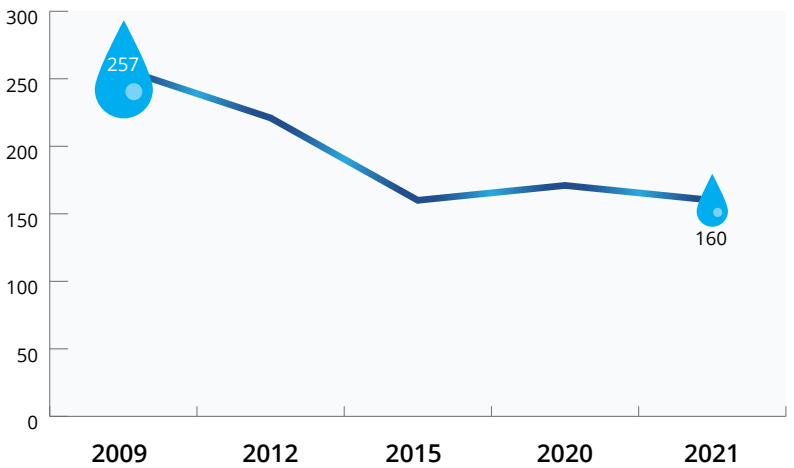
IEUA and the Customer Agencies spent $10.8 Million for lifetime savings of 133,908 acre-feet at $81 per acre-foot

Gallons per Capita per Day

IEUA's GPCD water use has decreased significantly from 257 GPCD in 2009 to 160 GPCD in 2021 -- **a decrease of approximately 38%**.

IEUA and the Customer Agencies have achieved this through thoughtful planning and consistent program implementation. The GPCD will continue to be an essential metric to track performance as the State rachets down the targeted GPCD.

GPDC



Funding Sources

IEUA and the Customer Agencies have consistently utilized MWD funding and other grant opportunities to lower costs.

Since FY 02/03, IEUA and the Customer Agencies have leveraged over $34 million in outside funding. This included $3.5 million from various grants and over $30.5 million from MWD.

This translates to 76% of the total program funding coming from outside entities. In other words, for every dollar spent from IEUA's budget, another $3 came from outside agencies.

	Outside Funding*	IEUA Funding	MWD Funding	Total
FY 20/21	$77,176	$1,451,319	$1,393,238	$2,921,733
FY 19/20	$128,581	$1,021,770	$1,492,804	$2,643,155
FY 18/19	$131,443	$458,536	$519,978	$1,109,956
FY 17/18	$51,732	$497,997	$431,508	$981,237
FY 16/17	$75,673	$571,455	$1,841,568	$2,488,696
FY 15/16	$252,272	$1,843,659	$10,352,294	$12,448,225
FY 14/15	$156,992	$1,480,103	$3,649,235	$5,286,329
FY 13/14	$93,271	$271,615	$526,772	$891,658
FY 12/13	$418,678	$189,256	$543,667	$1,151,601
FY 11/12	$552,041	$164,428	$496,808	$1,213,277
FY 10/11	$426,373	$157,325	$521,423	$1,105,121
FY 09/10	$30,069	$213,265	$459,348	$702,683
FY 08/09	$177,955	$509,617	$3,675,511	$4,363,082
FY 07/08	$308,981	$500,276	$1,318,173	$2,127,430
FY 06/07	$673,848	$348,514	$928,562	$1,950,924
FY 05/06	$0	$507,413	$648,080	$1,145,677
FY 04/05	$0	$460,676	$608,350	$1,069,026
FY 03/04	$0	$138,123	$652,120	$790,243
FY 02/03	$0	$69,283	$494,220	$563,503
Total	**$3,555,085**	**$10,854,630**	**$30,553,657**	**$44,953,557**

* Includes Customer Agency funding.

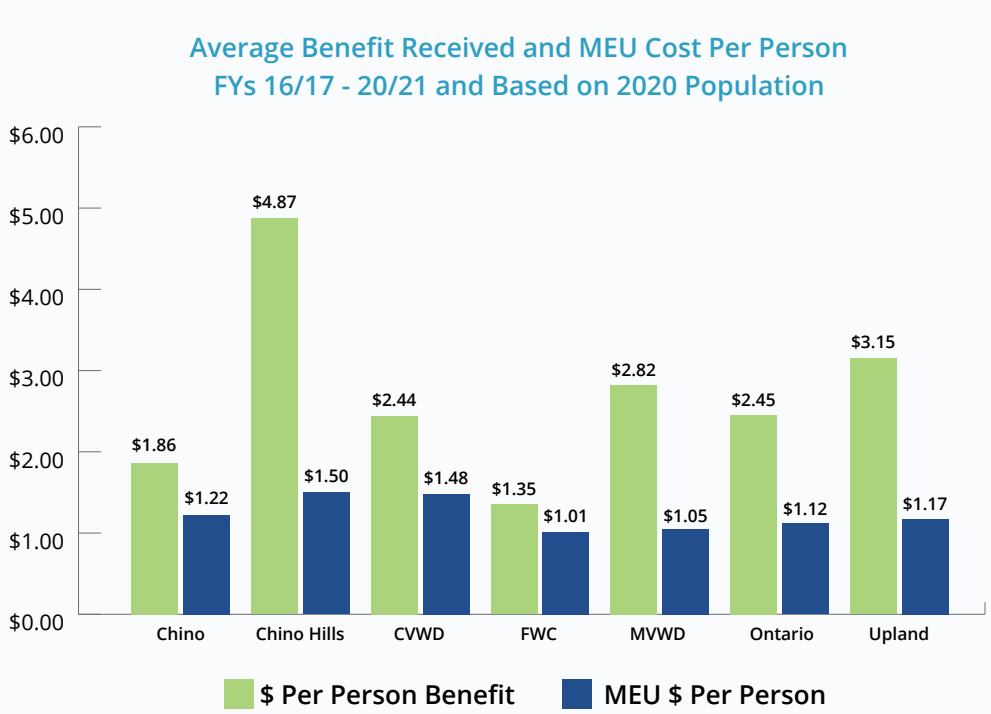
As described above, IEUA has a long history of success in accessing grant funds to support the implementation of its numerous programs. Between 2003-2021, **IEUA successfully secured over $5 million in grant funding.** IEUA will continue to pursue all grants and financial incentives and expects to offset a significant portion of future program costs.

Year	Funding Agency	Project	Grant Amount
2003	DWR	Urban Water Conservation Capital Outlay Grant Program for X-Ray Processor Retrofit	$230,000
2005	USBR	Chino Basin Water Efficient Irrigation Demonstration Projects	$50,000
2006	DWR	Multi-Family ULF Toilet Direct Install Program	$1,650,133
2006	MWD	Community Partnering Program Grant	$15,000
2008	DWR	IEUA Large Landscape Water Audit Training and Technical Assistance Program	$194,476
2009	USBR	California Water Wise Landscape Project	$30,000
2012	USBR	Regional Residential Landscape Surveys and Retrofit Program	$200,000
2015	DWR	Regional Residential Landscape Retrofit	$500,000
2016	DWR	Proposition 84 Drought High Visibility Turf Removal Project	$1,256,865
2021	SAWPA	Proposition 1, Round 1 Regional Comprehensive Landscape Rebate Program	$712,514
2021	SAWPA	SARCCUP Water Efficiency Dedicated Landscape Meter Budget Assistance Program	$57,215
2021	SAWPA	Watershed-Wide Water Budget Decision Support Tool – Aerial Imagery Program	$219,500
		Total	**$5,115,703**

Agency Benefits vs. Cost

The Customer Agencies fund a portion of the Regional WUE Program through revenues from MEU charges. Every Agency realized a positive benefit from the Regional WUE Program. This means the monies collected through the MEU charges are, with every Customer Agency, lower than the benefits received in program funding.

The chart on the right illustrates the benefits received and the MEU cost-per-person-per Agency.



Legislative Compliance

Starting in 2008, IEUA and the Customer Agencies have deemed legislative compliance a critical goal when planning and implementing WUE.

2010 AB1420 – Required the region and Agencies to implement and report best management practices. The legislation lined up with actions taken to meet California Urban Water Conservation Council (CUWCC) Best Management Practice's (BMP) compliance, to which IEUA had been committed. By implementing Regional WUE Programs, IEUA and the Customer Agencies could report BMP activities and compliance together. IEUA and the Customer Agencies met all compliance requirements.

SB x7-7 – Required all Agencies to reduce water use 20% by 2020. The legislation allowed Customer Agencies to cooperatively determine and report progress toward achieving water use reduction targets through a Regional Alliance. By implementing active WUE programs and policy initiatives, the Regional Alliance met the per capita reduction goals.

WUE Regulatory Compliance

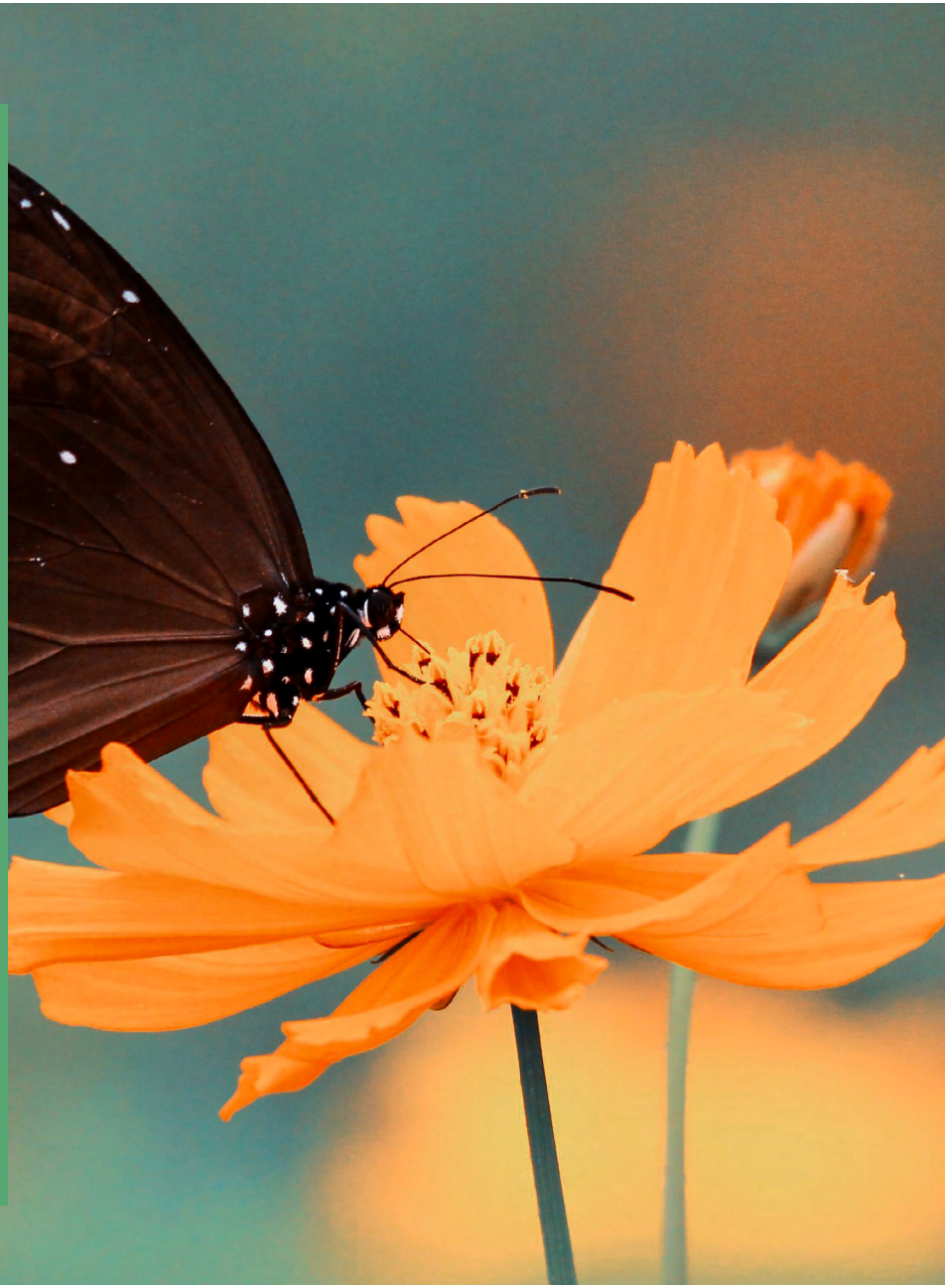
Regulatory Statute	Requirements	Accountable/Penalty	Approach	Status
		2008 - 2016		
Assembly Bill 1420	Mandatory Best Management Practices /Demand Management Measures	IEUA and Customer Agencies Not Eligible for State Water Grant and Loans	Lined up with actions taken to meet CUWCC BMP compliance. By implementing Regional WUE Programs each IEUA and the Customer Agencies were able to report BMP/ DMM activities and compliance.	**Complied.** Requirement sunsetted July 1, 2016.
		2015 – 2020		
SB X7-7 20x2020	Reduce per capita water use by 10% by 2015 AND Reduce per capita water use by 20% by 2020	IEUA and Customer Agencies Not Eligible for State Water Grant and Loans	Legislation allowed water agencies to cooperatively determine and report progress toward achieving water use reduction targets through a Regional Alliance. By implementing active WUE programs and policy Initiatives the Regional Alliance met the per capita reduction goals.	**Complied.** **2015 Target = 226 GPCD** **2015 Actual = 160 GPCD** **2020 Target = 193 GPCD** **2020 Actual = 171 GPCD**

3. Changing Circumstances **Require Change**

Combined with the new State Framework requirements, continued drought conditions have created heightened challenges for the region, particularly for the Customer Agencies. With new circumstances, there is a need for structural changes in how the WUE Business Plan is developed and implemented.

Customer Agencies identified the areas of responsibility that needed to be realigned to achieve success moving forward. Areas of realignment include:

1. Greater alignment in Customer Agency program funding and benefits received.
2. More Customer Agency governance in decision-making related to program funding sources and how those funds are spent.
3. Flexibility to offer local programs.



Agency Needs Have Changed

Since it is now the sole responsibility of each Customer Agency to achieve the State's WUO, the Customer Agencies have stated that they require a stronger voice and position in the decision-making process. Specifically, Customer Agencies want the ability to select and fund more beneficial projects for their local territory, and they want a payment structure that aligns more closely with their costs.

Programs Must Evolve to Meet the Changing Needs

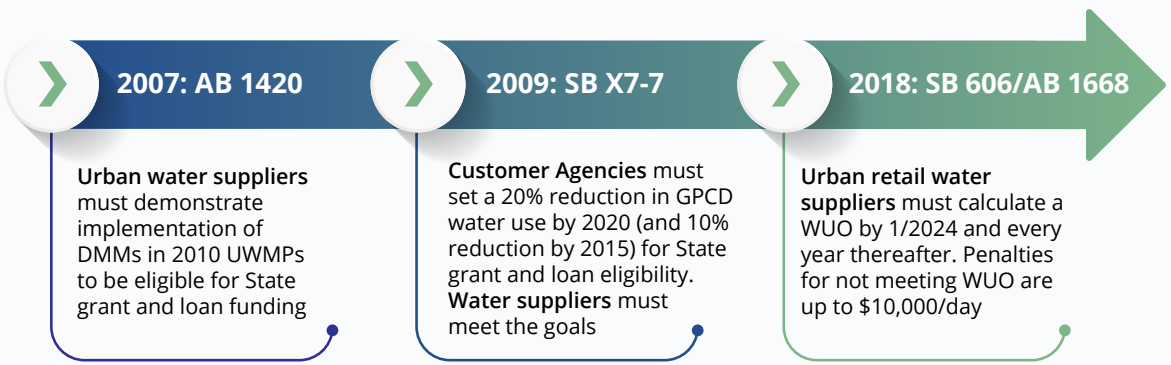
The Customer Agencies believe, to meet future objectives and evolving needs, they must have more program flexibility and the ability to target inefficient water users. Agencies want the capability to tailor programs or offer new ones that meet the specific needs of their customer base. Customer Agencies lead all communications with their customers, they have the local knowledge and network to reach more users.

Legislative Changes Have Major Impacts to Business As Usual

Legislation over the past decades has driven IEUA's business models and decision-making structures. The shift in legislation voted into law in 2007 is dramatically different in approach and compliance than the current State Framework.

SB 606/AB 1668 – Currently being rolled out, Agencies will need to meet a water allocation/budget/objective based upon the efficient use of water for their specific service area. Responsibility will fall solely upon each Customer Agency instead of the region or collective Agencies to deliver ever-increasing and aggressive levels of efficiency. There are significant Customer Agency fines for not meeting Water Use Objectives.

State Legislation Over the Years

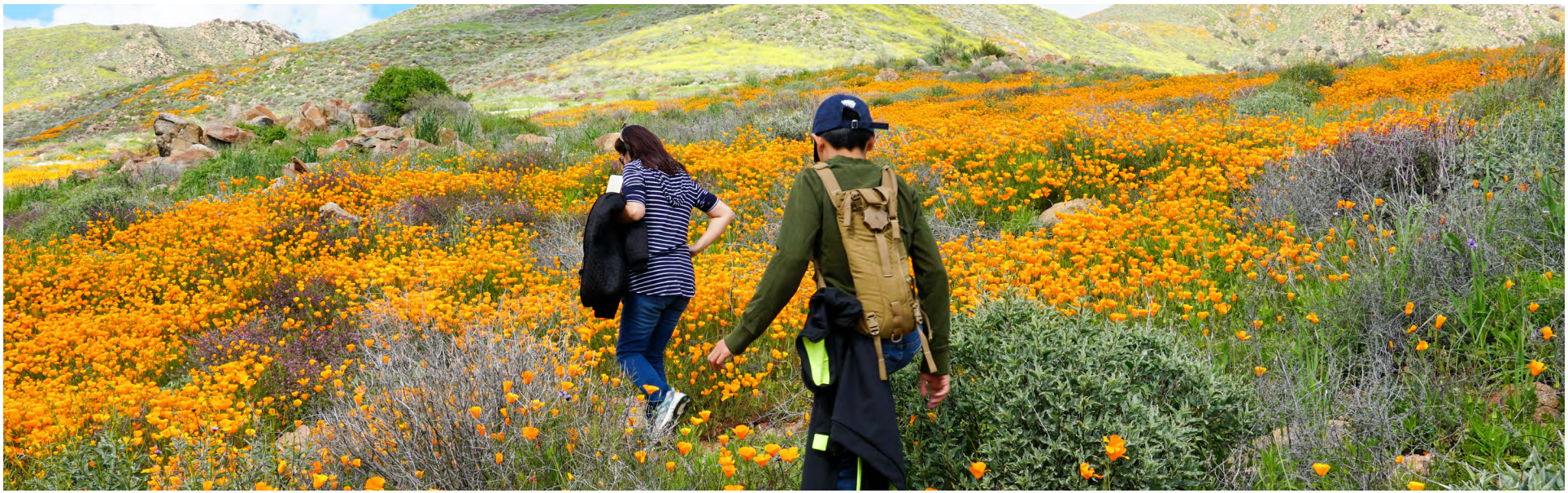


A detailed description of the State Framework is provided as Appendix ___.

New Legislative Requirements

Regulatory Statute	Requirements	Accountable/ Penalty	Approach	Status
			2023 - 2030	
SB606 and AB1668	Urban Water Use Objectives based upon Four Water Use Standards	Individual Customer Agency Significant Penalties up to $10,000 per day	Each Customer Agency is individually responsible for calculating, reporting, and meeting their WUO each year.	Legislation not finalized. Based upon recommended DWR standard, IEUA modeled the WUO for each of the Customer Agencies. Per the projections, six of the eight Customer Agencies are on track to be below their WUO for 2024. Three agencies are tracking at above their objective: CVWD, FWC and WVWD. For 2030, all of the agencies are tracking above their anticipated WUO. The region will need to reduce annual water use by 18,400 acre-feet to meet the standards.*

*Total excludes WVWD's data because most of WVWD's service area is not in the IEUA service area.



Customer Agency Framework Compliance Modeling

To prepare for the 2024 and 2030 WUO requirements, IEUA modeled the expected WUO for each Customer Agency against their 2019 water use. The modeling was done utilizing the State Water Resources Control Board (SWRCB) WUO Exploration Tool applying the expected, but not finalized standards.

Per the projections, six of the eight Customer Agencies are on track to be below their Water Use Objectives for 2024. Three agencies are tracking slightly above their objective: CVWD, FWC, and WVWD. Additionally, with less than 3,000 connections, San Antonio Water Company is not subjected to the legislation.

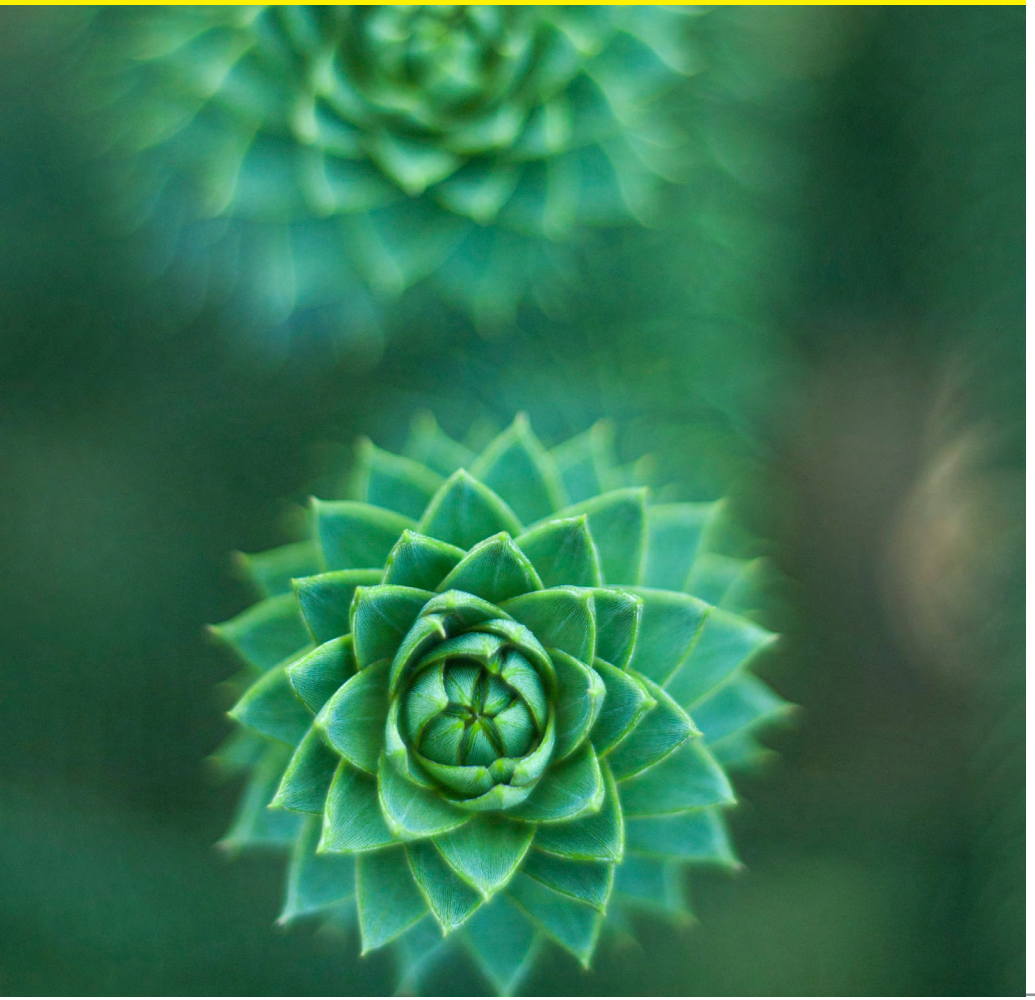
The 2024 compliance projection per Customer Agency, modeled against 2019 annual water use, is shown in the chart below.

Customer Agency Water Use Objective 2024 Projected Compliance

Customer Agency	SBX7-7 Target GPCD	2019 Use	2024 WUO Objective	% Required to Reduce*	Required Annual AF Reduction
Chino	194	164	169	0%	--
Chino Hills	173	142	154	0%	--
CVWD	232	197	186	5%	2,300
FWC	176	142	159	0%	--
MVWD	176	116	133	0%	--
Ontario	196	167	177	0%	--
Upland	231	204	190	7%	1,200
WVWD	232	188	182	3%	2,400

Modeling based on the DWR recommended standards as of January 2022. The scenario assumes 55 GPCD and 0.80 ETAF. SAWCo not included because the new regulations only apply to retail agencies with more 3,000 connections.

For 2030, however, all Customer Agencies are tracking above their anticipated WUO. The region will need to reduce annual water use by an estimated 15,600 acre-feet to meet the standards. The total excludes WVWD's potential required reduction of 2,800 AF because most of WVWD's service area is not in the IEUA service area.



Customer Agency Water Use Objective 2030 Projected Compliance

Customer Agency	2030 WUO	Required % Reduction*	Required Annual AF Reduction
Chino	148	10%	1,500
Chino Hills	131	7%	1,000
CVWD	163	17%	7,600
FWC	138	3%	1,000
MVWD	113	3%	200
Ontario	157	6%	1,900
Upland	165	19%	3,400
WVWD	160	15%	2,800

Modeling based on the DWR recommended standards as of January 2022. The scenario assumes 42 GPCD and 0.65 ETAF. SAWCo not included because the new regulations only apply to retail agencies with more 3,000 connections.

Customer Agency Challenges with the State Framework Requirements

Agencies will face many challenges over the next two years as they look to comply with the impending State standards and meet their Water Use Objectives.

Challenges include:

1. Allocating the resources required to calculate and report their WUO annually.
2. Measuring the landscape area for dedicated irrigation meter (DIM) accounts, generating water budgets for those properties, and reporting annual use.
3. Identifying mixed-use meters (MUM) with 1 acre or more of landscaped area and either, installing dedicated irrigation meters, or showing demonstrated improvement of water use efficiency.
4. Identifying and targeting inefficient properties for direct program outreach.
5. Developing and implementing more refined customer outreach and increased support services
6. Tracking program performance and making course corrections to meet objectives.
7. Completing all requirements by 2023.

Framework Compliance Timeline

2021

DWR

Final Standard Recommendations Sent to SWRCB

2022

SWRCB

Adopts Final Standards

Retail Agencies

- Assess Compliance
- Measure DIM Properties
- Identify MUMs with 1 Acre or More of Landscape
- Determine Gap
- Develop & Implement Plan to Meet WUO

Begin 5 Year Compliance Path for CII

2023

Retail Agencies

- Continue to Measure DIM Properties
- Identify MUMs with 1 Acre or More of Lanscape
- Implement Plan to Meet WUO

Submit Annual Loss Reports (July 1)

2024

Retail Agencies

Calculate WUO (Jan 1)

55 GPCD

0.80* ETAF

Submit Annual Water Use and Water Loss Reports

2025/26

Retail Agencies

GPCD Reduced to 47

Calculate WUO

Submit Annual Water Use and Water Loss Reports

SWRCB

May Issue Conservation Orders for Agencies Not Meeting WUO

2027/28

Retail Agencies

Calculate WUO

Submit Annual Water Use and Water Loss Reports

SWRCB

May Issue Fines for Agencies Not Meeting WUO

2030

Retail Agencies

GPCD Reduced to 42*

ETAF Reduced to 0.65*

*DWR recommended standards. Standards not yet finalized.

4. Business Planning **Process**

Importance of the WUE Business Planning Process

Back in the early days of the water efficiency industry, IEUA and Customer Agencies provided the region with water conservation education and retrofit programs for indoor efficiency devices.

By 2007, it was clear that there was a need to expand the scope and effectiveness of the customer programs. With the passage of AB 1420, urban water suppliers now had to demonstrate implementation of best management practices and demand management measures in the 2010 Urban Water Management Plans or lose access to State grants and loan funding. Clearly, a more comprehensive planning process was required to develop an effective business plan for the region and the Customer Agencies. In response, the 2008 Interim Business Plan was developed by IEUA, with collaboration from the Customer Agencies.

In 2009, SB X7-7 was passed, requiring Customer Agencies to set a 20% reduction goal in water use by 2020 (with a 15% reduction by 2015) or, again, be ineligible for State grants and loan funding. Aggressive State mandates were here to stay, and the regional planning process became an important undertaking.

WUE Business Plans to Date:

2007	Need for a Business Plan was identified by IEUA and Customer Agencies
2009	Interim Business Plan generated
2010	The 2010-2015 WUE Business Plan generated
2015	The 2015-2020 WUE Business Plan generated
2021*	The 2021-2025 WUE Business Plan created but later it was decided to split plan into Phase 1 and re-worked for Phase 2
2022	Phase 2 WUE Business Plan generated-- to be reassessed in 1 year

2020 delayed to 2021 due to multiple circumstances including staffing availability and COVID.

WUE Business Plan Phase 1 and Phase 2

As shown above, IEUA generated the third iteration of its Water Use Efficiency Business Plan in 2021. IEUA first developed a Five-Year Plan in 2010, and again in 2015. The 2020 plan was delayed because COVID caused disruption to the normal course of business.

Planning resumed in 2021 and the 2021-2025 WUE Business Plan was generated. The planning process for this cycle unearthed a number of Customer Agencies' concerns and, although the Plan was completed, discussions between all stakeholders began in earnest at this time.

With the shift in State legislation, the Customer Agencies had an increased responsibility as water suppliers. The group felt the process needed to be modified to align with this important change. During the 2021 planning process, it became quite clear that many agencies wanted to review and possibly rework how program funds were allocated. There was strong interest in having an Agency's costs line up more directly with the local benefits received. The Agencies wanted a more collaborative process, increased stake in the decision-making, the flexibility of local programs, and modifications to the program funding format.

In summary, there was Agency concern that the current planning process did not reflect their local goals and objectives.

IEUA Response to Customer Agency Concerns

IEUA understood that there were concerns from the Customer Agencies and a path forward was proposed.

First, the 2021- 2025 Business Plan would be split into phases. Phase 1 would maintain a status quo for FY 2021/22, carrying forward current programs and budget levels while Phase 2 planning was executed. Phase 2 planning was set to determine the vision and programs to be offered longer term.

Continued Importance of the Phase 1 Plan

Although the Phase 1 Plan was re-worked for 2022, it is still a highly relevant foundational planning document. The Plan contains a comprehensive look-back at the accomplishments and challenges of the previous five years. Included are water use trends, as well as details of past program metrics, such as costs, water savings, and cost-effectiveness. This program performance history provided the fundamental data in which to build the new plan. The Phase 1 Plan also overviews current conditions that impact water use efficiency, including impending regulation, emerging water savings technologies, new program delivery mechanisms, available grant funding, and economic factors. The Plan has still-relevant information including the water efficiency strategies, priorities, programs, and budgets to meet the many challenges of the next five years.

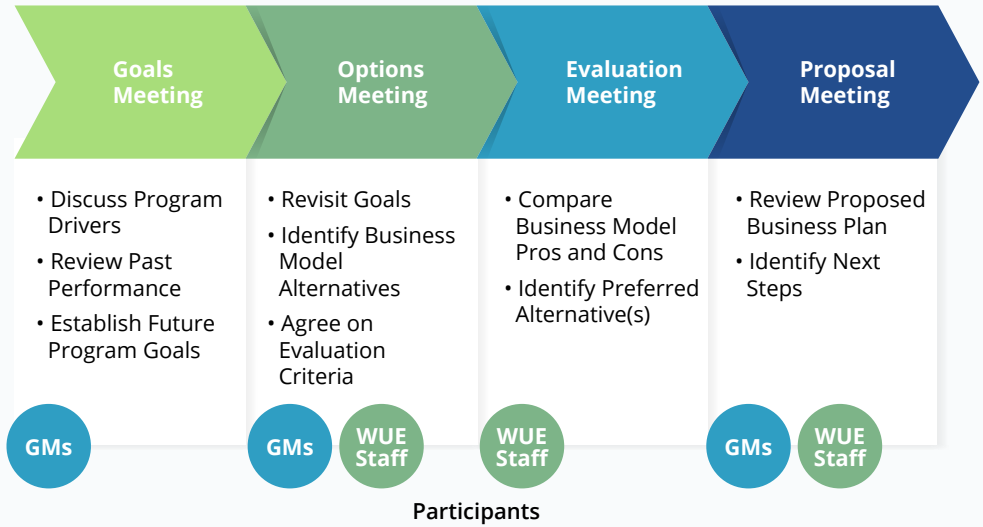
Phase 2 Planning Process

IEUA initiated a process to collaboratively assess the current Regional WUE Program and decide upon what program format, if any, would benefit the Customer Agencies and the region as a whole.

IEUA secured the services of facilitator and planner Paul Brown, Principle of H2O Planner. Paul is a consultant who focuses on helping water utilities achieve water management goals through structured planning, implementation, and stakeholder engagement.

The IEUA planning team, along with Paul, designed a process to gather feedback, establish goals, assess alternatives, and hopefully develop an effective Regional Water Use Efficiency Program. There was no pre-determined outcome. IEUA wanted the process to be collaborative and, in the end, for the Regional WUE Program to meet the Customer Agencies' local needs.

Agency general management and WUE staff were invited to participate in four meetings. The first meeting's purpose was to establish future goals for the Regional WUE Program. The objective of the second meeting was to identify alternative business models and determine the criteria for evaluating the models. The third meeting aimed to compare the advantages and disadvantages of each model and decide which model would be effective for IEUA and the Customer Agencies. The last of four meetings was held to finalize the new model and decide upon the next steps for implementation.



Meeting Schedule

The meetings shown below were held in person and available for online participation.

Meeting #	Location	Date
Meeting #1	Cucamonga Valley Water District	September 14, 2021
Meeting #2	Inland Empire Utilities Agency	October 12, 2021
Meeting #3	Cucamonga Valley Water District	November 9, 2021
Meeting #4	Cucamonga Valley Water District	December 7, 2021

The original intention was to have the Customer Agency General Managers at meetings 1 and 2 to develop the goals and evaluation criteria and again at meeting 4 to select the business model to be implemented.

Meeting Participants

There was robust participation from IEUA and Customer Agencies alike. The follow is a listing of attendees at each of the four meetings and the organizations they represented.

Meeting #1 Participants

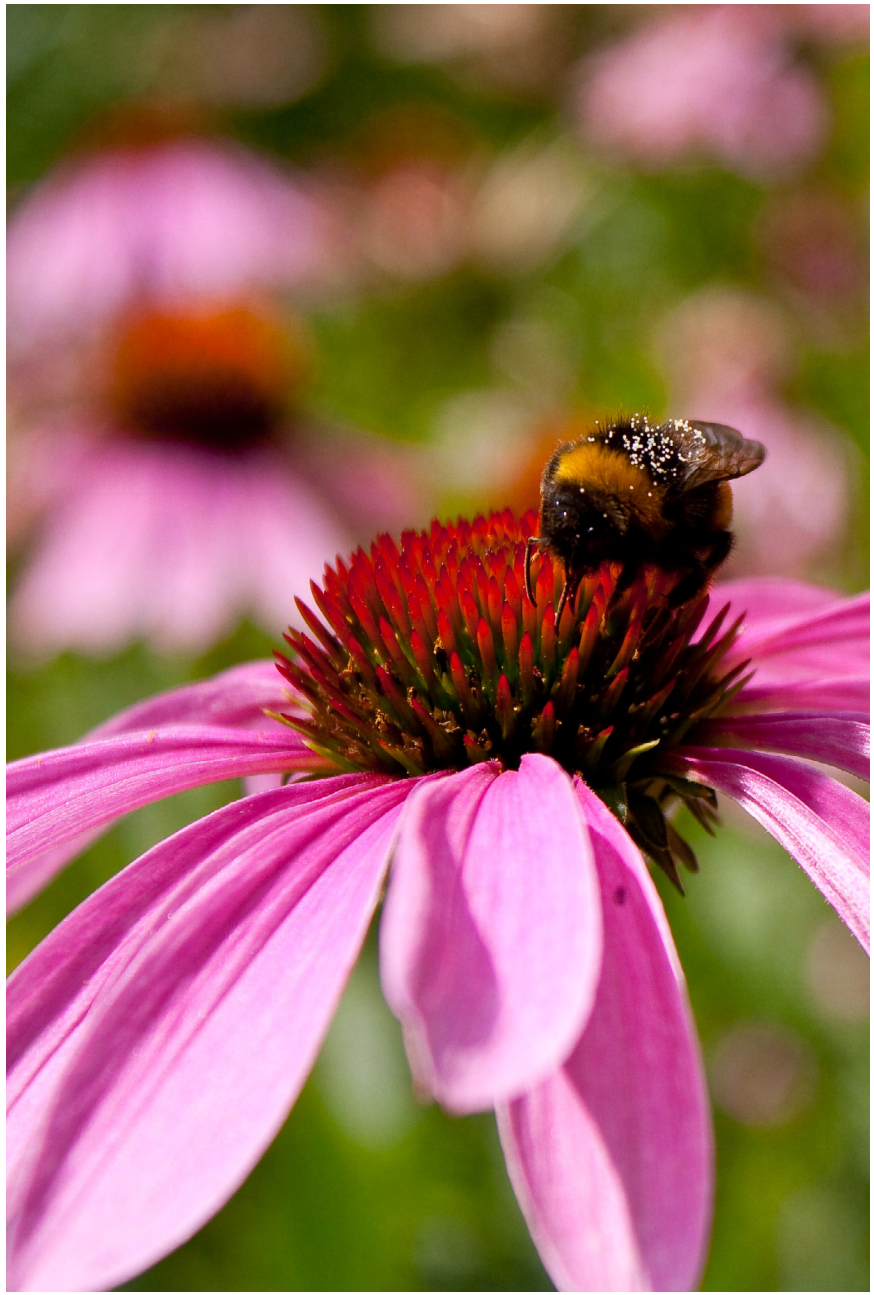
Agency	Name	Role
Chino	Dave Crosley	Water Resources Manager
Chino Hills	Mark Wiley	Utility Operations Manager
CVWD	John Bosler	General Manager
CVWD	Eduardo Espinoza	Assistant General Manager
FWC	Patrick Soto	Conservation Coordinator
MVWD	Justin Scott-Coe	General Manager
MVWD	Stephanie Reimer	Assistant General Manager/Chief Financial Officer
Ontario	Scott Burton	Utilities General Manager
Ontario	Courtney Jones	Water Resources Director
Upland	Nicole deMoet	Environmental Quality Administrator
Upland	Michelle Madriz	Management Analyst
IEUA	Shivaji Deshmukh	General Manager
IEUA	Cathleen Pieroni	Manager of Inter-Agency Relations
IEUA	Lisa Morgan-Perales	Senior Water Resources Analyst
IEUA	Chris Garcia	Environmental Resources Planner
IEUA Consultant	Paul Brown	Facilitator
Via Phone or Online		
MVWD	Kelley Donaldson	Community Affairs Manager
Chino Hills	Jake Loukeh	Water Use Efficiency Coordinator
IEUA	Christina Valencia	Executive Manager of Finance and Admin/AGM
IEUA	Javier Chagoyen-Lazaro	Manager of Finance and Accounting
IEUA	Alex Lopez	Senior Financial Analyst
IEUA Consultant	Maureen Erbeznik	Consultant

Meeting #2 Participants

Agency	Name	Role
Chino	Dave Crosley	Water Resources Manager
Chino	Joslyn Blakely	Project Coordinator
Chino Hills	Jake Loukeh	Water Use Efficiency Coordinator
CVWD	Eduardo Espinoza	Assistant General Manager
CVWD	Eric Grubb	Government and Public Affairs Manager
FWC	Patrick Soto	Conservation Coordinator
MVWD	Justin Scott-Coe	General Manager
Ontario	Courtney Jones	Water Resources Director
Ontario	Amy Bonczewski	Water Resources Coordinator
SAWCO	Brian Lee	General Manager
MWDOC	Joe Berg	Director of Water Use Efficiency
IEUA	Shivaji Deshmukh	General Manager
IEUA	Cathleen Pieroni	Manager of Inter-Agency Relations
IEUA	Lisa Morgan-Perales	Senior Water Resources Analyst
IEUA	Chris Garcia	Environmental Resources Planner
IEUA Consultant	Paul Brown	Facilitator
IEUA Consultant	Maureen Erbeznik	WUE Planning Consultant
Via Phone or Online		
Chino	Amanda Coker	Principle Engineer
Chino Hills	Mark Wiley	Utility Operations Manager
MVWD	Kelley Donaldson	Community Affairs Manager
Upland	Braden Yu	Public Works Director
Upland	Nicole Moet	Environmental Quality Administrator
WVWD	Rickey Manbahal	General Manager
IEUA	Christina Valencia	Executive Manager of Finance and Admin
IEUA	Javier Chagoyen-Lazaro	Manager of Finance and Accounting
IEUA	Alex Lopez	Senior Financial Analyst

Meeting #3 Participants

Agency	Name	Role
Chino Hills	Jake Loukeh	Water Use Efficiency Coordinator
CVWD	Eric Grubb	Government and Public Affairs Manager
CVWD	Erin Morales	Government & Public Affairs Supervisor
FWC	Patrick Soto	Conservation Coordinator
MVWD	Justin Scott-Coe	General Manager
Ontario	Amy Bonczewski	Water Resources Coordinator
SAWCO	Brian Lee	General Manager
Upland	Nicole Moet	Environmental Quality Administrator
CBWCD	Elizabeth Skrzat	Executive Director
IEUA	Shivaji Deshmukh	General Manager
IEUA	Javier Chagoyen-Lazaro	"Acting" Executive Manager of Finance and Admin
IEUA	Cathleen Pieroni	Manager of Inter-Agency Relations
IEUA	William McDonnell	Environmental Resources Planner
IEUA	Lisa Morgan-Perales	Senior Water Resources Analyst
IEUA	Chris Garcia	Environmental Resources Planner
IEUA Consultant	Paul Brown	Facilitator
IEUA Consultant	Maureen Erbeznik	WUE Planning Consultant
Via Phone or Online		
Chino	Dave Crosley	Water Resources Manager
Chino	Amanda Coker	Principle Engineer
Chino	Joslyn Blakely	Project Coordinator
Chino	Joel Martinez	
Chino Hills	Mark Wiley	Utility Operations Manager
MVWD	Stephanie Reimer	Assistant General Manager/Chief Financial Officer
MVWD	Kelley Donaldson	Community Affairs Manager
Ontario	Courtney Jones	Water Resources Director
Upland	Braden Yu	Public Works Director
Chino Basin Watermaster	Peter Kavounas	General Manager
Chino Basin Watermaster	Edgar Tellez Foster	Water Resources and Planning Director
IEUA	Christina Valencia	Executive Manager of Finance and Admin
IEUA	Alex Lopez	Acting Budget Officer



Meeting #4 Participants

Agency	Name	Role
Chino	Dave Crosley	Water Resources Manager
Chino	Amanda Coker	Principle Engineer
Chino	Joslyn Blakely	Project Coordinator
Chino Hills	Jake Loukeh	Water Use Efficiency Coordinator
CVWD	Eduardo Espinoza	Assistant General Manager
CVWD	Eric Grubb	Government and Public Affairs Manager
CVWD	Erin Morales	Government and Public Affairs
CVWD	Evette Ounanian	Administrative Assistant II
FWC	Patrick Soto	Conservation Coordinator
MVWD	Justin Scott-Coe	General Manager
Ontario	Courtney Jones	Water Resources Director
Ontario	Amy Bonczewski	Water Resources Coordinator
Upland	Michelle Madriz	Management Analyst
Upland	Nicole deMoet	Environmental Quality Administrator
WVWD	Rickey Manbahal	General Manager
CBWCD	Elizabeth Skrzat	Executive Director
CBWCD	Scott Kleinrock	Conservation Programs Manager
IEUA	Shivaji Deshmukh	General Manager
IEUA	Javier Chagoyen-Lazaro	Manager of Finance and Accounting
IEUA	Cathleen Pieroni	Manager of Inter-Agency Relations
IEUA	Lisa Morgan-Perales	Senior Water Resources Analyst
IEUA	William McDonnell	Environmental Resources Planner
IEUA	Chris Garcia	Environmental Resources Planner
IEUA	Catherine Mendoza	Intern
IEUA Consultant	Paul Brown	Facilitator
IEUA Consultant	Maureen Erbeznik	WUE Planning Consultant

Agency	Name	Role
Via Phone or Online		
Chino	Joel Martinez	Intern
MVWD	Stephanie Reimer	Assistant General Manager/Chief Financial Officer
MVWD	Kelley Donaldson	Community Affairs Manager
SAWCO	Brian Lee	General Manager
Upland	Braden Yu	Public Works Director
IEUA	Alex Lopez	Senior Financial Analyst

5. Outcomes of the **Planning Process**

Despite the complexity of large group planning, meeting attendees worked collaboratively throughout the Phase 2 planning process.

With the guidance of H2O Planner Paul Brown, attendees outlined the varied needs of the group, established goals, assessed options, and, in the end, selected the WUE Business Model that worked most effectively for all parties.

Each of the four meetings yielded important and foundational outcomes for designing the final Business Plan.

The outcomes were:

- Establishment of Regional WUE Program goals
- Creation of 5 Business Models for consideration
- Assessment of the 5 Business Models
- Selection of the Hybrid Business Plan

Establishment of Regional WUE Program Goals

In the first meeting, planning group attendees worked to establish a set of key requirements to guide the plan's development and ensure that the final product would meet all objectives.

The planning group determined that key **Program Requirements** must be:

- Mission and Purpose Driven
- Future Focused
- Actionable and Achievable
- Accountable and Measurable

Next, IEUA proposed, and the group agreed upon, a set of **Program Goals** to address Customer Agencies' major areas of concern such as decision-making, cost equity, flexibility, local needs, agency goal achievement, etc.

The goals fall into eight main categories and are overviewed in the chart to the right.

IEUA Regional WUE Program Goals
Governance Provide Customer Agencies with a meaningful role in the selection and development of WUE programs.
Flexibility Allow Customer Agencies to identify preferred program participation at their discretion. Allow flexibility in annual IEUA funding levels depending on need (i.e., increased funding during drought).
Equity Structure program so that Customer Agencies costs are commensurate with their benefits received.
Regulatory Compliance Support the Customer Agencies' responsibility to achieve regulatory compliance.
Supply Reliability Achieve regional goals for demand management in relation to regional water supply reliability planning goals.
Costs Incorporate administrative efficiency. Take advantage of regional economies of scale. Ensure that WUE programs are cost effective in relation to other supply options.
Financial Promote revenue stability.
Accountability Promote achievement of annual program activity commitment levels.

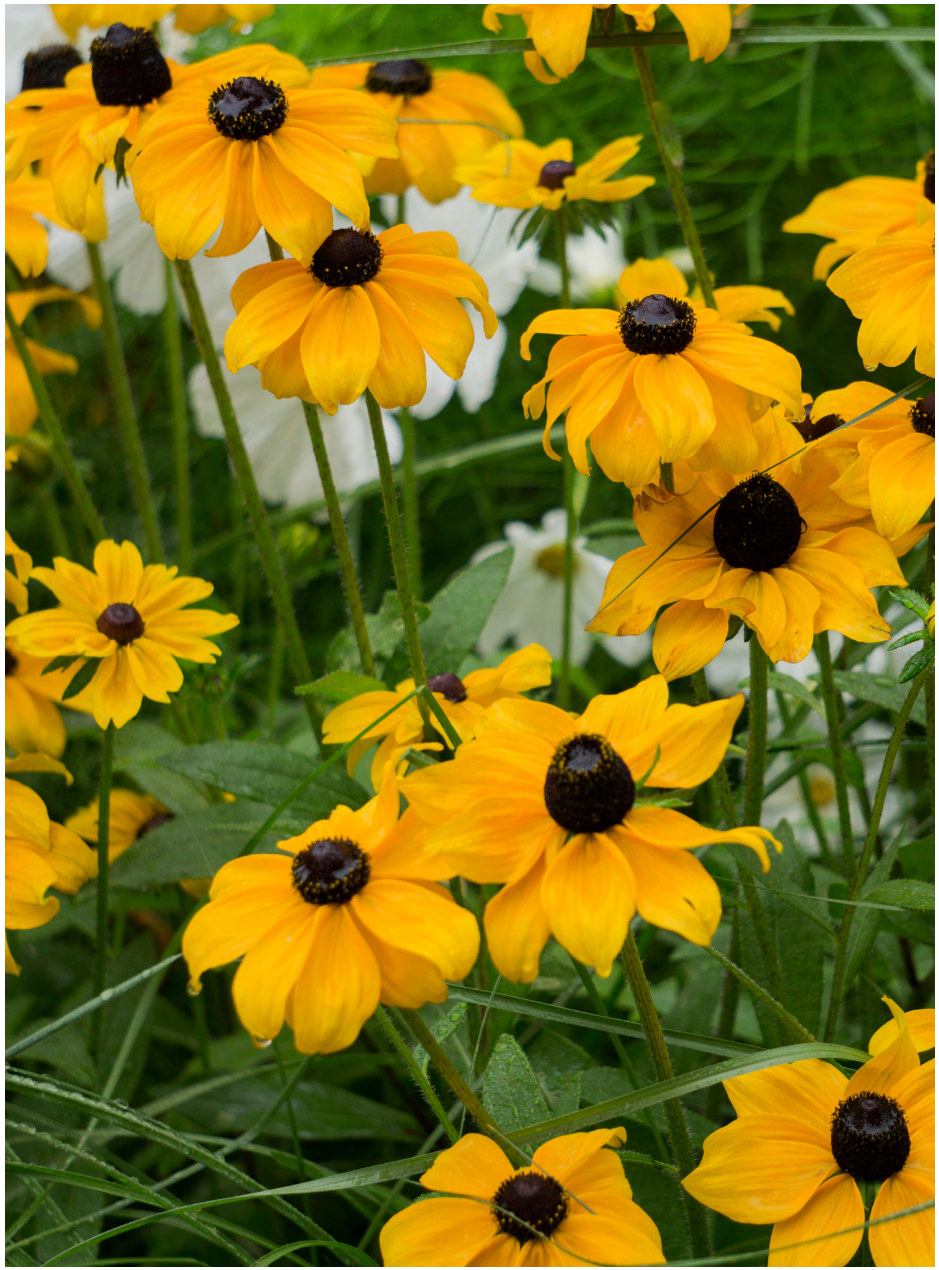
Business Model Options

Once the goals were established, the group was tasked with developing and selecting the business model for Phase 2 of the Business Plan. IEUA introduced four business models for group consideration. After reviewing the four options, the planning group developed a fifth option.

The five plan options were:

1. Status Quo
2. Status Quo Plus
3. Transactional
4. Pass-Through Administration
5. Hybrid (Status Quo/Transactional)

The proposed plan options offered a range of design possibilities. There was the Status Quo model which, as the name suggests, utilized the same Regional WUE Program construct as in previous years. And at the other end of the spectrum the Pass-Through model, which eliminated the IEUA Regional WUE Program in its entirety.



Below is an overview of each plan:

	Programs	Cost vs Benefit Alignment	Funding Source	Budget	Reserve or Encumbrance	IEUA Staffing
Status Quo	Same turnkey Regional WUE Programs	Regional benefit	• MEU charges* • One Water Connection fees • MWD & grants	$1.6M program budget plus operating costs	Unrestricted fund reserves – use as encumbrances	2.35 FTEs
Status Quo Plus	Same turnkey Regional WUE Program plus drought programs	Regional benefit	Same as Status Quo plus per acre-foot surcharge during drought	Same as Status Quo plus agreed-upon budget for extraordinary conservation during drought	Same as Status Quo plus designated reserve fund for drought	2.35 FTEs
Transactional	Each agency selects programs from menu	Agencies pay only for services provided	Customer Agency pays through advanced billings	Depends on agency selected programs and activity levels	No reserve	Depends on agency selected programs
Pass-Through	No IEUA Regional WUE Program Only MWD and local programs	Agencies pay for MWD supplemental rebates only	Customer Agency pays for MWD supplemental rebates only	No annual IEUA budget	No IEUA budget	Minimal staffing to support MWD programs
Hybrid (Status Quo/ Transactional)	Agencies agree on core turnkey programs plus budget for local programs and/or additional funding for Regional WUE Programs	Costs aligns more directly with benefits (81%)	• MEU charges* • One Water Connection fees • MWD & grants	FY 22/23 - $2.5M Future years to be determined	Unrestricted fund reserves – use as encumbrances	2.35 FTEs

Each business model option is summarized on the following pages.

*IEUA's MEU rate was implemented on October 1, 2016 following a 2015 rate study, for which IEUA received stakeholder input during several workshops. The rate is in effect through FY 2024-2025 and any change to IEUA's rate structure would require a new rate study.

Status Quo Business Model

The Status Quo model had the benefit of ease of Regionally administered customer programs. Still, the design did not solve the major concerns of the Customer Agencies regarding decision-making and local program flexibility.

Features of the Status Quo model:

- Turnkey program design leverages IEUA's role as MWD & SAWPA member agency
- Agencies all contribute equally towards "regional benefit"
- Predictable/steady funding source with which to run the program
- "Encumbrances" provide some spending flexibility but not enough for a big ramp-up during drought
- Turnkey grant-writing benefits (USBR, DWR, etc.)
- Economies of scale
- Selection of Programs made by Regional WUE Workgroup members

Status Quo

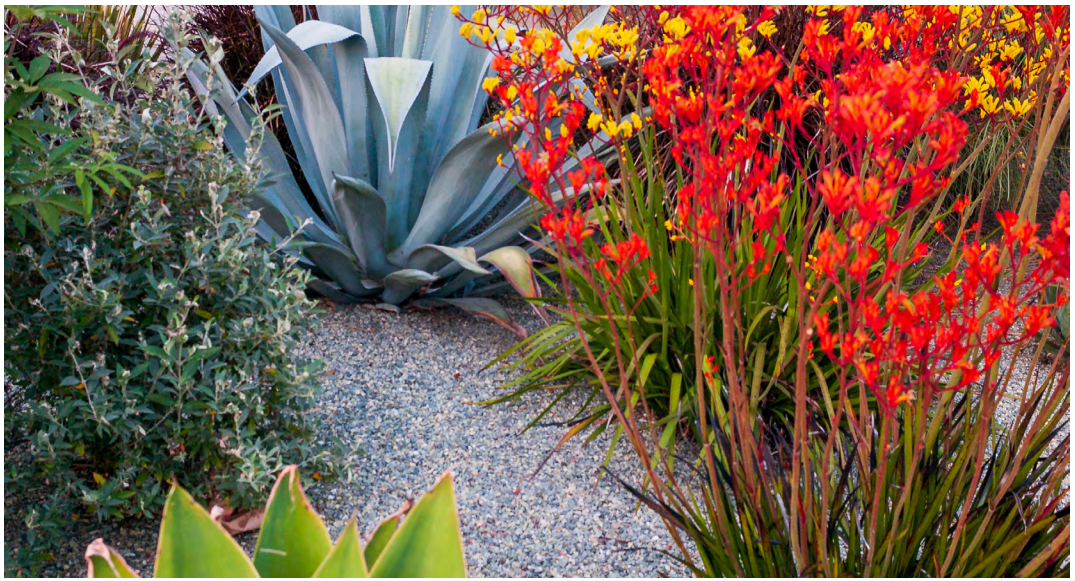
Aligns with MWD's Business Model and Supports "Regional Benefit" Principle

Funding Source: MEU Rate, One Water Connection Fee, Grants, MWD

~$1.6M program funding plus operating costs

Water Resources Unrestricted Fund Reserves; Use Carry Forward Funds

Staffing: 2.35 FTEs



Status Quo Plus Business Model

The Status Quo Plus Business Model is nearly identical to Status Quo. The only difference with this option is that additional funds would be collected and designated as reserve funds to use during droughts or water shortages. The Status Quo Plus Business Model, while an improvement to the Status Quo design, still did not resolve enough of the Customer Agency concerns to be of interest to the group.

Features:

- Turnkey program design leveraging IEUA role as MWD & SAWPA member agency
- Ratepayers all contribute equally toward the "regional benefit" of WUE programs; the drought surcharge pays for drought response
- Predictable/steady funding source with which to run a normal Regional WUE Program
- A designated reserve fund provides spending flexibility, and a drought surcharge allows for the temporary ability to pay for extraordinary conservation when needed
- Turnkey grant-writing benefits (USBR, DWR, etc.)
- Economies of scale
- Selection of Programs made by Regional WUE Workgroup members

Status Quo Plus Business Model

Aligns with MWD's Business Model and Supports "Regional Benefit" Principle

Funding Source: Same as Status Quo plus per acre-feet surcharge during drought

~$1.6M program funding plus operating costs

Includes Designated Reserve for WUE

Staffing: 2.35 FTEs

Transactional Business Model

The Transactional Business Model was modeled after the Municipal Water District of Orange County's WUE Choice Program structure. Each agency selects which programs they would like to participate in and provides an estimation of the expected annual activity level. The Customer Agency would pay upfront for those services.

A reconciliation process would occur between payments and actual activity at the end of each year. Agencies would be billed either for additional services or, if there is an overpayment, the amount would be credited to next year's costs. Administration fees for the Transactional Model would be based on the percent of activity reached for each agency.

The Transactional Business Model option would provide each IEUA Customer Agency with a menu of programs from which to select. It would also provide cost alignment with the "pay for performance" design.

The negative aspects are the unreliability of year-to-year funding and the inability of some Agencies to pay advanced billings. There is also a loss of economies of scale due to the uncertainty of program activity levels compared with traditional regionally administered programs.

Transactional Business Model

Costs align directly with services provided

Funding Source: Program costs supported from advanced billings

Program costs depends on programs and activity levels Agencies select

Annual budget depends on programs Agencies select

IEUA Staffing: depends on programs Agencies select

Features:

- Agencies contribute according to each Agency's level of participation — Cost of IEUA's services billed upfront, per estimated proportional share
- Less predictable funding source from year-to-year with which to run the WUE program
- Can ramp up to do extraordinary conservation during drought – only invoice for increased program activity
- Turnkey programming for Customer Agencies, including grant-writing
- Might lose some economies of scale if agencies do not select specific programs or conduct sufficient outreach

Pass-Through Administration Model

The Pass-Through Administration Model was provided for review but was never really a consideration. With the Pass-Through Model, no local Regional WUE Programs would be implemented — a dramatic restructuring of customer program delivery.

Customer Agencies could participate in MWD's Regional Incentive Programs and add additional incentive dollars if desired. Although not administering any IEUA Regional WUE Programs, IEUA would handle the MWD program paperwork because MWD is only authorized to work with its 26 member agencies.

Due to its radical design, as stated, the Pass-Through Model was not actively endorsed by the planning group.

Features:

- Customer Agencies directly fund and manage WUE programs
- No IEUA involvement in Regional WUE Program management or grant-writing

Pass-Through Administered Business Model

IEUA Role Very Limited

Funding Source: TBD

IEUA Staffing: minimal to support MWD programs

No IEUA Grant-writing

No IEUA annual budget

Hybrid Business Model

There were many discussions on three of the four options. Some agencies preferred the Status Quo approach, while others preferred the Transactional. One agency's rate structure, specifically, didn't allow billing for program fees because they would have to absorb the cost. The Pass-Through Model offered no benefit beyond a regional rebate program.

With issues surrounding each of the first four designs, the planning group designed a Hybrid Model. This model had the Regional benefit principle for ensuring supply reliability. The planning group also saw the benefit for the region to have both the MWD Incentive Programs and IEUA Regional WUE Programs (i.e., Sprinkler Tune-up Program, Smart Controller Installations).

The Hybrid design allows Agencies to offer enhanced local programs or add additional funds to the Regional WUE Programs. Another advantage is that 81% of the program's budget is allocated to each Customer Agency based on their contribution to MEU revenues. This funding format aligns more directly with the respective benefits received by each Agency. The remaining Core funding (19%) provides regional benefits to all Customer Agencies.

Hybrid Business Model

Supports "Regional Benefit" Principle and Costs Align More Directly with Benefits

Funding Source: MEU Rate, One Water Connection Fee, Grants, MWD

~$1.6M program funding plus operating costs

Water Resources Unrestricted Fund Reserves; Use Carry Forward Dollars

Staffing: 2.35 FTEs

Features:

- Turnkey project management design leveraging IEUA role as MWD & SAWPA member agency
- Revenue contributions from MEU and Connection Fees
- Predictable and steady funding source with which to run projects
- Budget dollars not spent could be carried forward and would provide funding flexibility.
- Grant-writing benefits (USBR, DWR, etc.)
- Core: Cost-effective demand management
- Flex: Optional at the Customer Agencies' discretion
- Regional economies of scale
- Selection of projects made by Regional WUE Workgroup members
- Addresses equity issues

6. Selected **Hybrid Model**

The Hybrid Business Model resolved many of the concerns expressed by the Customer Agencies and was the selected design for the Phase 2 Business Plan. The chart below shows the comparison of the WUE Program Goals against the Hybrid Model. As shown on the following pages, this model meets all of the program goals set forth at the beginning of the planning process.

WUE Program Goal	Hybrid Plan Features
Governance Provide Customer Agencies with a meaningful role in the selection and development of WUE programs	• Together with IEUA, Customer Agencies will determine Core Programs • Utilizing Flex Program funding, agencies can now select programs at their discretion
Flexibility Allow Customer Agencies to identify preferred program participation at their discretion Allow flexibility in annual IEUA funding levels depending on need (i.e., increased funding during drought)	• Utilizing Flex Program funding, Customer Agencies can now select programs at their discretion • Funds not used during a given two-year budget cycle will carry forward for future use
Equity Structure program so that Customer Agency costs are commensurate with Customer Agency benefits received	• More than 50% of the overall budget is allocated based upon the amount each Customer Agency pays into the MEU income including: ▪ Flex Programs (30%) ▪ Landscape Tune-up and Smart Controller Installation Core Programs (20%)
Regulatory Compliance Support the Customer Agencies' responsibility to achieve regulatory compliance	• Core programs assist in driving down GPCD and increasing outdoor water use efficiency. • Flex programs allow for Customer Agencies to fund local regulatory compliance initiatives
Supply Reliability Achieve regional goals for demand management in relation to regional water supply reliability planning goals	• The majority of programs are regional providing increased broad regional supply reliability
Costs Incorporate administrative efficiency Take advantage of regional economies of scale Ensure that WUE programs are cost effective in relation to other supply options	• Core programs, representing nearly 80% of program funds, cost less than MWD's Tier 1 rate • The majority of programs are regionally administered providing administrative efficiencies and economies of scale
Financial Promote revenue stability	• WUE continues to be funded from stable revenue sources including: ▪ MEU Rate ▪ One Water Collections ▪ MWD and Other Grants
Accountability Promote achievement of annual program activity commitment levels	• Each Customer Agency will continue to be responsible for program promotion for both Core and Flex programs

Hybrid Business Model Program Funding

For the WUE Hybrid Business Model, programs fall into two funding categories:

Core Programs are typically cost-effective and provide benefits to all Customer Agencies. Core programs comprise ***70% of the WUE budget.***

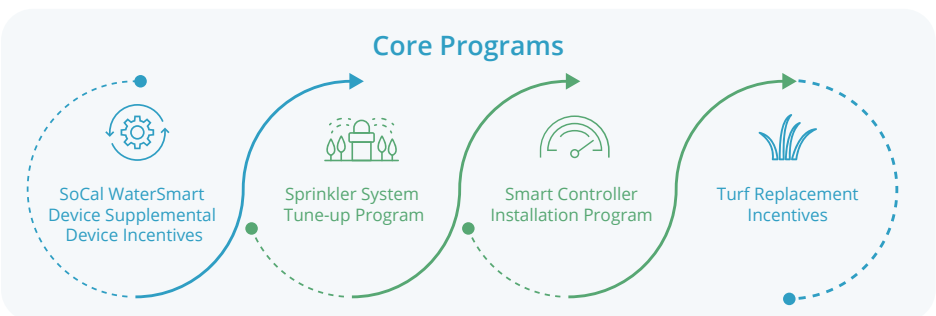
Flex Programs offer Customer Agencies the ability to select and fund more beneficial projects for their local territory. **Flex Programs comprise 30% of the WUE budget.**

Core and Flex Programs

Core Programs

Programs that fall under MWD's Tier 1 volumetric rate for treated water (currently $1,146/AF) are considered cost-effective and deemed to have a regional benefit and therefore considered "Core". Each of these programs is budgeted annually and available to all Customer Agency customers. It is up to each Customer Agency to market the programs. Examples of Core Programs are:

- SoCal WaterSmart Supplemental Device Incentives
- Sprinkler System Tune-up Program (allocated based upon MEU contribution)
- Smart Controller Installation Programs (allocated based upon MEU contribution)
- Turf Replacement Incentives



The SoCal WaterSmart supplemental device funding and additional Turf Replacement rebate contributions are subject to budgetary caps and will be dispersed on a first-come, first-serve basis.

The Sprinkler System Tune-Up and Smart Controller Installation Programs will be allocated to Customer Agencies based on each Customer Agency's percent contribution to the previous year's MEU revenue. If a Customer Agency's allocation is not spent by March of the following year, their remaining allocation becomes available to all Customer Agencies.

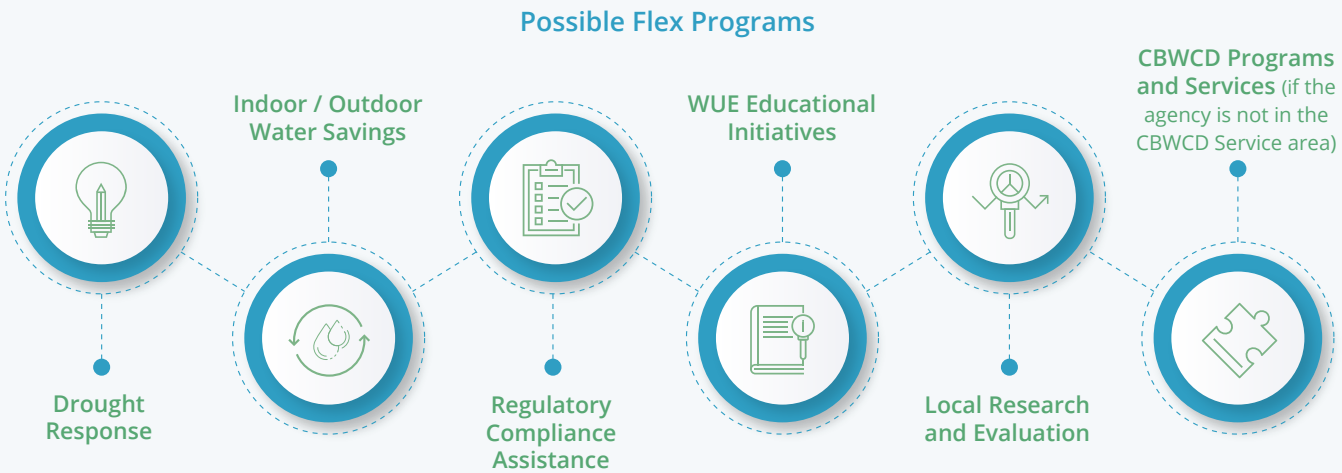
Customer Agencies are responsible for marketing programs and promoting activity within their respective service area.

CalWEP/AWE annual membership dues will continue to be funded through the Core Programs budget.

Flex Programs

As the name indicates, Flex Programs provide Customer Agencies with funding for programs they identify as most valuable for their service area. Flex projects are not required to have measurable water savings. Still, they must be directly supportive of water use efficiency or conservation. Programs may include:

- Drought Response
- Indoor/ Outdoor Water Savings
- Regulatory Compliance Assistance
- WUE Educational Initiatives
- Local Research and Evaluation
- CBWCD Programs and Services (LEAP and Landscape Training Services)

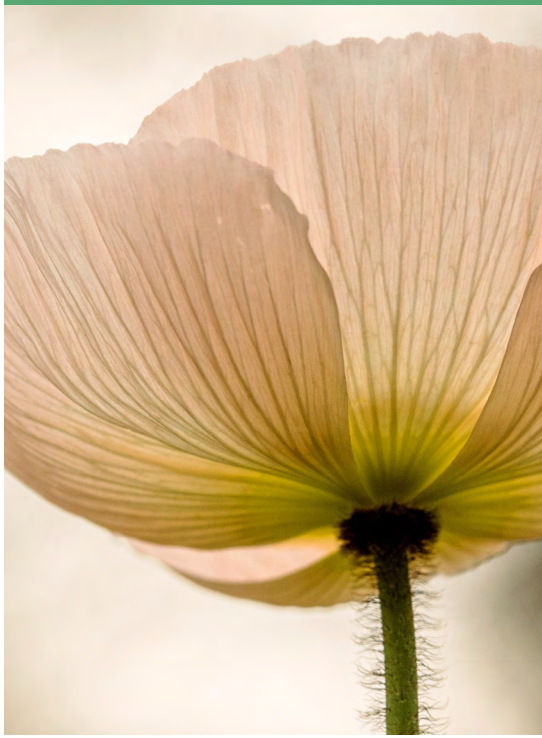


Flex program funding will be allocated to each Customer Agency based upon each Agency's annual contribution to the previous year's MEU revenue. Allocations will change yearly due to changes in meter counts.

Customer Agencies may add additional funding to any Core or Flex project. Only Customer Agency added funds are available for refund should program participation fall short of the expected activity. Alternatively, added funds may be carried forward or moved to an alternative project at the request of the Customer Agency.

Customer Agencies are asked to identify, using the IEUA Flex Program Form, which WUE projects will be funded with Flex dollars.

Note that Chino Basin Water Conservation District has made an internal decision to eliminate offering Landscape Design Services. They will continue to engage contractors and provide them with design resources and templates. Do-It-Yourself customers will also have access to these services.



Current Program Designation: Core vs. Flex

To determine the cost-effectiveness threshold for a program, it is necessary first to establish the avoided costs of supply. The significance of the avoided costs is that IEUA and Customer Agencies can avoid the volumetric costs of purchasing MWD water for each acre-foot of water saved.

For the 2022/23 fiscal year WUE Hybrid Business Model, IEUA uses the avoided costs of MWD's Tier 2 rate for treated water of $1,146 per acre-foot.

IEUA currently administers eight programs. Of these eight programs, four are designated as core because their costs fall below MWD's Tier 2 rate of $1,145 per acre-foot.

Current Program Designation: Core Vs. Flex

Current Programs	**Core Vs Flex**	**Cost per Acre-foot** (IEUA and MWD Combined Cost)
SoCal WaterSmart Rebates*	Core	$136 - $731 *Varies based on measure*
Turf Replacement Rebates*	Core	Residential: $824 Commercial: $1,123
Sprinkler System Tune-up	Core	$801
Smart Controller Installations (Small and Large)	Core	$826
Pressure Regulating Valve Installations	Flex	$4,655
Landscape Evaluations and Audits *Included as Flex because only part or all of some Agencies' service area is in the CBWCD service area, and therefore payment for services is not equitable*	Flex	Residential: $362 Commercial: $68
National Theater for Children	Flex	Water savings are not available for school education programs

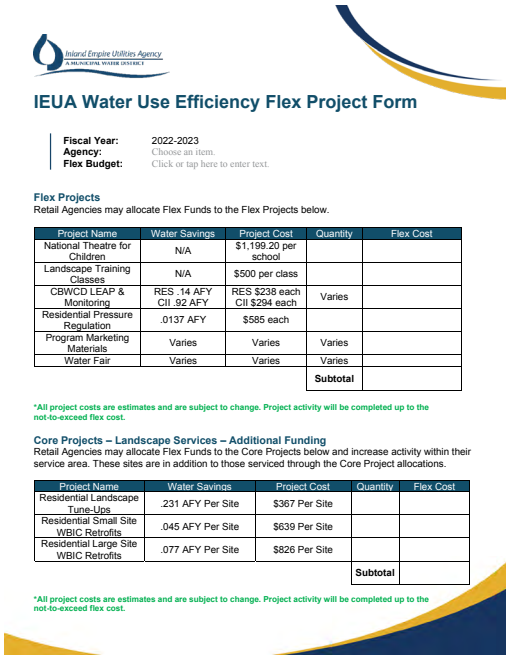
*Funds for SoCal WaterSmart device and turf replacement rebates are not allocated. This allows for program continuity (i.e. no start/stop), therefore increased customer service as well as ease of administration.

Customer Agency Flex Program Selection

The majority of Customer Agencies have identified the WUE projects they propose to fund with their share of the Flex dollars.

IEUA staff will work with each Customer Agency to develop a plan to implement the Flex projects. Additionally, IEUA will have periodic check-ins throughout FY 22-23 on project progress. If despite best efforts, participation levels are lagging, IEUA will work with Customer Agencies to implement potential options to maximize the full use of the Customer Agencies' Flex funds.

IEUA and the Customer Agencies will make every effort to assure project dollars are spent in the fiscal year budgeted. However, mobilization timeframes, marketing strategies, and participation levels may vary between Customer Agencies. If needed, the 70% Core and 30% Flex funding split may be subject to change for FY 2023-24 and beyond.



Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

IEUA Water Use Efficiency Flex Project Form

Fiscal Year: 2022-2023
Agency: Choose an item.
Flex Budget: Click or tap here to enter text.

Flex Projects
Retail Agencies may allocate Flex Funds to the Flex Projects below.

Project Name	Water Savings	Project Cost	Quantity	Flex Cost
National Theatre for Children	N/A	$1,199.20 per school		
Landscape Training Classes	N/A	$500 per class		
CBWCD LEAP & Monitoring	RES .14 AFY CII .92 AFY	RES $238 each CII $294 each	Varies	
Residential Pressure Regulation	.0137 AFY	$585 each		
Program Marketing Materials	Varies	Varies	Varies	
Water Fair	Varies	Varies	Varies	
			Subtotal	

*All project costs are estimates and are subject to change. Project activity will be completed up to the not-to-exceed flex cost.

Core Projects – Landscape Services – Additional Funding
Retail Agencies may allocate Flex Funds to the Core Projects below and increase activity within their service area. These sites are in addition to those serviced through the Core Project allocations.

Project Name	Water Savings	Project Cost	Quantity	Flex Cost
Residential Landscape Tune-Ups	.231 AFY Per Site	$367 Per Site		
Residential Small Site WBIC Retrofits	.045 AFY Per Site	$639 Per Site		
Residential Large Site WBIC Retrofits	.077 AFY Per Site	$826 Per Site		
			Subtotal	

*All project costs are estimates and are subject to change. Project activity will be completed up to the not-to-exceed flex cost.

Customer Agency Flex Projects

Each Agencies' Flex Projects are listed in the table on the following pages. The table identifies water savings when possible. There are circumstances where savings numbers could not be determined. For example, educational programs have no direct associated savings. As well, supplemental rebate funds added to the regional Turf Replacement Rebates and/or the SoCal WaterSmart Device Rebates cannot be isolated from the general activity therefore cannot be quantified.

It is interesting to note the following:

- Four of the eight agencies chose to implement local programs.
- Five agencies funded the National Theater for Children.
- Three allocated funds for the Small Controller Upgrade Program.
- Four put monies towards Landscape Training and LEAP services.
- Five agencies assigned funds for the Sprinkler Tune-up Program.
- Three added funding to the regional Turf Replacement Rebate Program.
- Three added funding to the SoCal WaterSmart Device Rebates.

Customer Agency	FY 22/23 Budget	Annual Water Savings (AF/YR)	Lifetime Water Savings (AF/YR)	Project Description
Chino				
Local Program	$67,079	7.48	149.60	*Pre-1994 premium efficiency toilet installations & water conservation kits*
National Theatre for Children	$4,797	NA	NA	
Landscape Training Classes	$1,000	NA	NA	
Total	**$72,876**	**7.48**	**149.60**	
Chino Hills				
Smart Controller Installations (Small)	$21,476	11.70	117.00	
Landscape Audits & Evaluations	$18,800	35.04	175.20	
Sprinkler System Tune-Up	$15,047	9.47	47.36	
Local Program	$10,000	NA	NA	*Web-based micro targeting tool & Rincon Park sloped landscape are renovation*
SoCal WaterSmart Rebates	$5,000	-	-	
National Theatre for Children	$2,398	NA	NA	
Water Fair	$500	NA		
Total	**$73,221**	**56.21**	**339.56**	
Cucamonga Valley				
Turf Replacement Rebates	$100,000	-	-	*Residential rebates*
Local Program	$49,036	NA	NA	*Mobile customer usage app with real-time water use data*
Pressure Regulating Valve Installations	$43,875	1.03	10.28	
Landscape Training Classes	$2,000	NA		
Landscape Audits & Evaluations	$1,470	4.60		
Total	**$196,381**	**5.63**	**10.28**	
Fontana				
Smart Controller Installations (Small)	$73,514	4.01	40.05	
Sprinkler System Tune-Up	$36,700	23.10	115.50	
Pressure Regulating Valve Installations	$29,250	0.69	6.85	
National Theatre for Children	$14,390	NA	NA	
Landscape Audits & Evaluations	$2,255	4.24	21.20	
Program Marketing	$5,000	NA	NA	
Landscape Training Classes	$3,000	NA	NA	
Water Fair	$2,500	NA	NA	
Total	**$166,609**	**32.03**	**183.60**	

Customer Agency	FY 22/23 Budget	Annual Water Savings (AF/YR)	Lifetime Water Savings (AF/YR)	Project Description
Monte Vista Water District				
Leak Repair and Plumbing Fixture Direct Installation	$14,925	TBD	TBD	
Turf Replacement Rebates	$7,725	-	-	
National Theatre for Children	$7,500	NA	NA	
Sprinkler System Tune-Up	$7,500	4.62	23.10	
Pressure Regulating Valve Installations	$3,000	0.07	0.07	
Total	**$40,650**	**4.69**	**23.17**	
Ontario				
Sprinkler System Tune-Up	$66,794	42.04	210.21	
Turf Replacement Rebates	$47,834	-	-	*$7,500 for residential and $40,334 for commercial*
Smart Controller Installations (Small)	$12,390	6.75	67.50	
National Theatre for Children	$10,793	NA		
Landscape Audits & Evaluations	$2,422	5.16	25.80	
SoCal WaterSmart Rebates	$1,680	-	-	
Total	**$141,913**	**53.95**	**303.51**	
SAWCo				
Sprinkler System Tune-Up	$1,835	1.16	5.78	
SoCal WaterSmart Rebates	$1,621	-	-	
Total	**$3,456**	**1.16**	**5.78**	
Upland				
Pressure Regulating Valve Installations	$17,550	0.41	4.11	
Smart Controller Installations (Large)	$16,520	15.40	154.00	
Smart Controller Installations (Small)	$12,780	9.00	90.00	
Sprinkler System Tune-Up	$10,276	6.47	32.34	
Landscape Audits & Evaluations	$2,515	4.38	21.90	
National Theatre for Children	$1,199	-	-	
Total	**$60,840**	**35.66**	**302.35**	
WVWD				
Landscape Training Classes	$5,500	NA	NA	
Total	**$5,500**	**NA**	**NA**	
Total All Agencies	**$720,796**	**196.80**	**1317.84**	

Local Flex Programs

The four agencies that chose local programs are: Chino, Chino Hills, CVWD, and MVWD. Descriptions of their selected programs are below.

Chino Local Flex Programs

1. **Pre-1994 Premium Efficiency Toilet Direct Installation Program**

   The City of Chino will implement a direct install toilet program for pre-1994 single family homes. The program will replace high flow toilets with premium efficiency toilets (0.8 GPF). A budget of $50,000 will be allocated for this program. It is estimated that 200 toilets will be replaced.

2. **Water Conservation Kits**

   The City will also provide Chino residents with water conservation kits. Kits will include shower heads, aerators, and toilet tune-up products. A total of $17,079 of flex funding will be used for approximately 500 conservation kits.

Chino Hills Local Flex Programs

Web-based Mapping Tool

The City of Chino Hills will implement a new web-based mapping tool to target properties using water inefficiently. The tool will overlay consumption data from the City's billing system onto a residential parcel map. The tool will compare water use over time and visually depict their efficiency level based upon water usage and parcel size. The data will be updated several times a week allowing staff to expeditiously identify inefficient properties.

All relevant customer information will be exported into a database through the web map tool. This data will be used to send customer-friendly postcards advertising relevant programs, rebates, tips, and seasonal messages.

Customers who have previously participated in an IEUA or MWD Regional WUE Program will be uploaded into the system later. This iteration will allow staff to examine program participation and measure saturation levels throughout the city.

The web map tool will help improve water efficiency by enabling staff to quickly target inefficient use throughout the year, particularly during winter and early spring when customers tend to overwater.

Chino Hills is asking for reimbursement for the staff time to develop the web tool. All staff time will be logged and submitted to IEUA for reimbursement and capped at $5,000.

Rincon Park Slope Renovation

City staff will remove low-growing plant material on a slope with established pine trees at Rincon Park. Removal of this plant material will allow for reduction of area watering. The pine trees are well established and will only need water periodically.

The impact will be measured by determining the approximate water used on the turf area and subtracting it from the total water used at Rincon Park.

The Parks Department will hire a contractor to remove the plant material. The estimated cost is $5,000.

Cucamonga Valley Water District Local Flex Program

Customer Usage Mobile App

CVWD will procure a customer water usage app for mobile devices. The app's main objective is to provide "real-time" daily and hourly water usage data to customers. The app will allow the customer to set desired usage limits and receive alerts when they have gone over the set limit. The app will also provide leak alerts when anomalies in water use are detected.

By providing key trends in water usage, the app will help drive water efficiency and influence change by providing customers with data to manage their use. In addition, by receiving instant leak notifications, water typically lost to leaks will be significantly reduced.

The project's impact will be measured through:

- The number of app users
- Feedback from customers
- Water usage data comparisons

The estimated annual cost for the app is $49,036.

Monte Vista Water District Local Flex Program

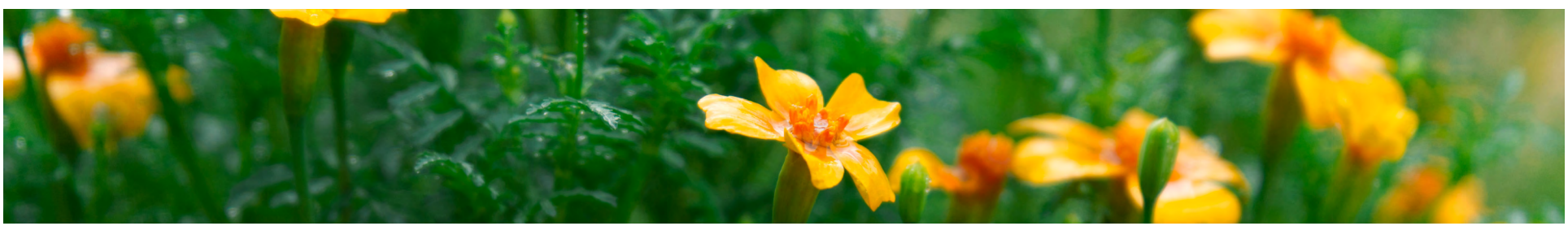
Leak Repair and Plumbing Fixture Replacement

MVWD will be implementing a direct-installation program to address leaks and curb water waste for owner-occupied homes. MVWD will offer a menu of services focusing on leak repairs and plumbing fixture replacement. This program will NOT include irrigation or mainline leak repairs, nor does it cover sewer-related issues (drain blockages, etc.). The menu of services includes:

- Initial service call to assess and identify leaks
- Toilet flapper replacement
- Toilet valve repair or replacement
- Showerhead repair or replacement
- Faucet aerator replacement
- Minor leak repairs for indoor fixtures (up to $500)

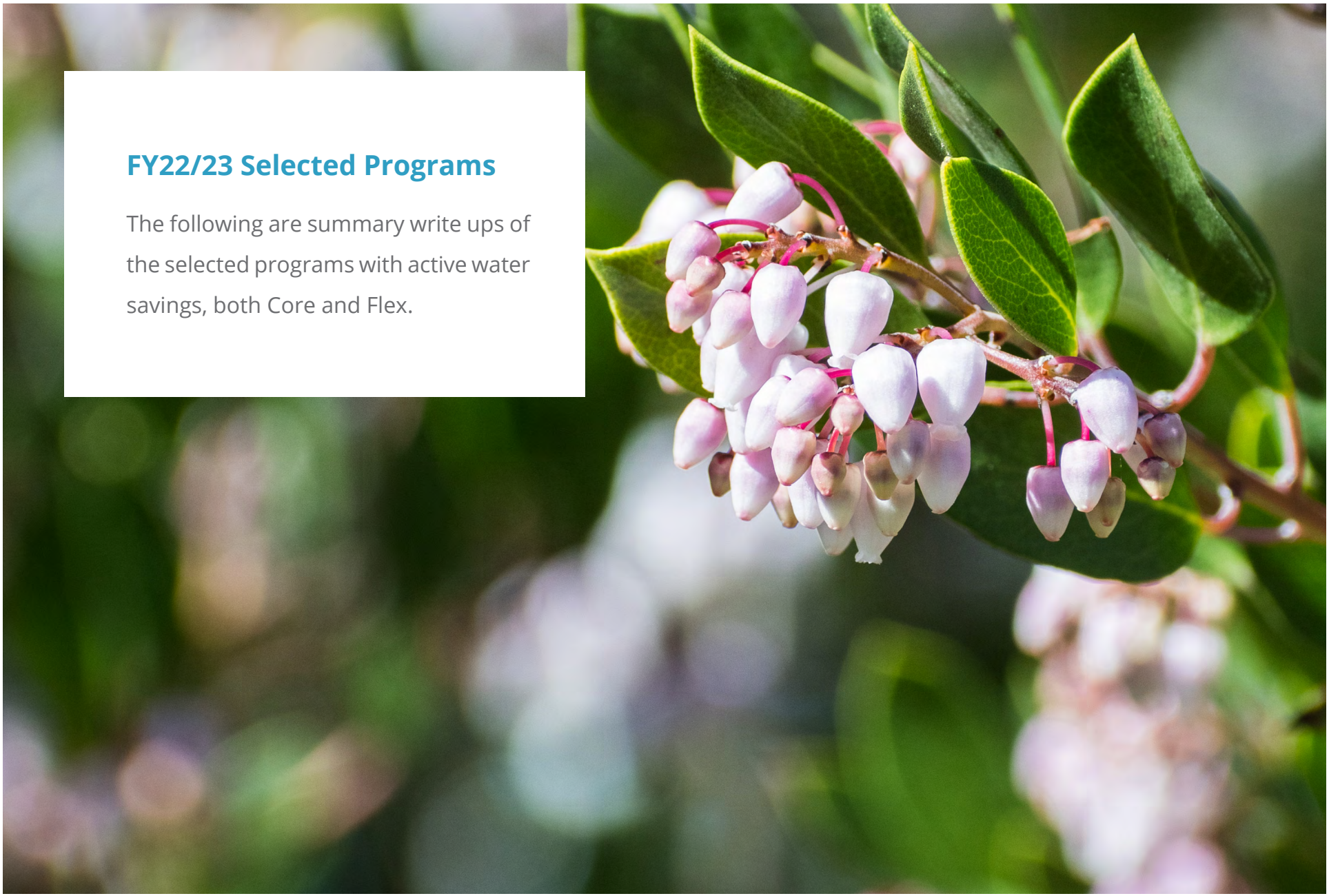
The program does not include water damage repairs, and there would be a $1,000 cap per customer/site. The estimated budget for this project is $14,925.

MVWD will track and report participation, the number of repairs and installations, and the associated costs. This information will be used to assess the program's water savings and overall performance.



FY22/23 Selected Programs

The following are summary write ups of the selected programs with active water savings, both Core and Flex.



Turf Replacement Program

The Turf Replacement Rebate Program encourages customers to remove high water-consuming turf and replace it with low water use, climate appropriate plants and surfaces that allow for ground water infiltration and elimination of runoff. Qualifying applicants are eligible to receive a $3 per square foot of turf grass removed. IEUA adds $1 to MWD's $2 base incentive. Additional funding may be available to participants depending on Customer Agency incentives or additional grants. MWD recently received a grant and is now offering a base incentive of $3 per square foot for public sector customers. The rebate is offered through the socalwatersmart.com customer portal.

During non-drought years, participation in the Turf Replacement Rebate Program significantly decreases. Among the barriers to customer acceptance are costs, aesthetic concerns, and a lack of ability to execute projects. Recommendations for addressing these barriers include:

- Linking customers to support services to help them make the change successfully. This may include connections to plant suppliers and contractors, design services, and customer consultations.
- Targeting of customers likely to replace their turf, consistent and appealing outreach, and education to address customer reluctance for change.

WATER SAVINGS (PER UNIT) 60 gallons per year per SF – *Residential* 44 gallons per year per SF - *Commercial*	**INCENTIVE** $3.00+ per SF	**COST EFFECTIVENESS** $824 per acre-foot (IEUA/MWD Combined $3) – *Residential* $1,123 per acre-foot (IEUA/MWD Combined $3) – *Commercial* $275 per acre-foot (IEUA Only $1) - *Residential* $374 per acre-foot (IEUA Only $1) - *Commercial*	**CUSTOMER AGENCY APPLICABILITY** Applicable for all agencies
MARKET POTENTIAL High	**TARGET MARKET** All properties with substantial and/or over-irrigated turf	**CUSTOMER INTEREST** Growing	**IMPLEMENTATION FEASIBILITY** Administration easy through MWD vendor, EGIA
REASONING • There are millions of square feet of irrigated turf in the IEUA territory. • Replacing turf with climate appropriate plants aids in transforming the market. • The program provides long-term savings.		**CONSIDERATIONS** • Turf replacement has a high cost per acre-foot. • The market acceptance is low during non-drought times. • There are numerous customer barriers: costs, concerns about aesthetics, and an inability to execute projects. • Contractors prefer projects 1,000 SF or larger.	

SOCAL WATERSMART REBATES – PLUMBING FIXTURES, APPLIANCES & IRRIGATION EQUIPMENT

The SoCal WaterSmart Program provides the region with continued funding and program administration for a menu of indoor and outdoor water saving devices.

The program is administered by MWD's regional vendor, EGIA. MWD pays for the base incentive as well the administration. IEUA and the Customer Agencies augment funding for select products to increase customer response.

MEASURE	MWD INCENTIVE	IEUA INCENTIVE	TOTAL INCENTIVE	IEUA COST PER AF	MWD and IEUA COST PER AF
RESIDENTIAL					
High Efficiency Clothes Washers	$85	$75	$160	$262	$559
Premium High Efficiency Toilets	$40	$60	$100	$439	$731
Leak Detection Devices	$100	$60	$160	$128	$341
LANDSCAPE					
High Efficiency Sprinkler Nozzles	$2	$3	$5	$92 - $242	$153 - $403
Smart Controllers (Less than one irrigated acre)	$80	$80	$160	$221	$443
Smart Controllers Per Station (One irrigated acre or larger)	$35	$15	$50	$96	$320
Hose Bib Irrigation Controllers	$35	$0	$0	$0	$224
Rain Barrels	$35	$0	$35	$0	$3,918
Cisterns	$250-$350	$0	$250-$350	$0	$6,997 - $6,893
Large Rotary Nozzles (Per Set)	$13	$5	$18	$0	$115
In-Stem Flow Regulators	$1	$3	$4	$0	$153

SOCAL WATERSMART REBATES – PLUMBING FIXTURES, APPLIANCES & IRRIGATION EQUIPMENT

MEASURE	MWD INCENTIVE	IEUA INCENTIVE	TOTAL INCENTIVE	IEUA COST PER AF	MWD and IEUA COST PER AF
COMMERCIAL					
Plumbing Flow Control Valve	$5	$5	$10	$68	$136
Laminar Flow Restrictor	$10	$10	$20	$92	$185
Commercial Premium High Efficiency Toilet	$40	$60	$100	$378	$630
Ultra-Low Water Urinal	$200	$100	$300	$54	$162
pH- Cooling Tower Controller	$1,750	$250	$2,000	$27	$219
Cooling Tower Conductivity	$625	$125	$750	$41	$248
Dry Vacuum Pump	$125	$50	$175	$128	$222
Connectionless Food Steamers	$485	$315	$485	$0	$218
Ice-Making Machines	$1,000	$1,000	$1,000	$0	$744

WATER SAVINGS (PER UNIT)
Varies based upon measure

INCENTIVE
Varies based upon measure

COST EFFECTIVENESS
Varies based upon measure

CUSTOMER AGENCY APPLICABILITY
Applicable for all Agencies

MARKET POTENTIAL
Mid

TARGET MARKET
All markets

CUSTOMER INTEREST
Low

IMPLEMENTATION FEASIBILITY
Easy

REASONING

- Program is available to all customers.
- Majority of funding is provided by MWD.
- Ease of implementation

CONSIDERATIONS

- Participation process is complex for customers.
- Requires customer to wait for rebate monies.
- Most plumbing fixtures have high saturation, therefore incremental savings are low.

SPRINKLER SYSTEM TUNE-UP PROGRAM

The Sprinkler System Tune-Up Program provides residential customers with a free landscape irrigation tune-up that includes:

- General landscape and irrigation evaluations.
- Recommendations for repairs and upgrades.
- Replacing and adjusting sprinkler heads and nozzles.
- Repairing valves and bad wiring.
- Controller programming and scheduling.
- Minor lateral irrigation line repairs.

The Tune-up Program was operated as a pilot in FY 18/19. Customers responded to the program so well that funding was exhausted within a few weeks. In FY 2020, IEUA and the Customer Agencies expanded the program to meet higher demand and following a competitive bidding process.

Landscape irrigation systems are often neglected by customers until they have a problem. By encouraging preventative maintenance, the Sprinkler Tune-up Program fills a void with expert help and often empowers customers to pay more attention to their systems. Recommendations to improve this program are:

- Consider targeting out-of-budget customers to improve cost effectiveness.
- Continue to analyze the savings per repair and duration of those savings and modify program services based upon findings.

WATER SAVINGS (PER UNIT) 75,597 gallons per year	**INCENTIVE** Free to customer Costs to agencies: $367 per site	**COST EFFECTIVENESS** $460 per acre-foot	**CUSTOMER AGENCY APPLICABILITY** Applicable for all Agencies
MARKET POTENTIAL High	**TARGET MARKET** All properties irrigated turf	**CUSTOMER INTEREST** High	**IMPLEMENTATION FEASIBILITY** Easy with outsourced service

SPRINKLER SYSTEM TUNE-UP PROGRAM

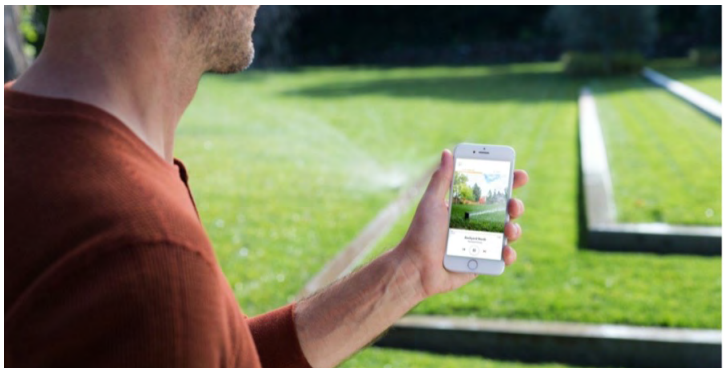
REASONING

- Nearly all irrigation systems need repairs.
- Repairs are necessary before efficiency upgrades are made otherwise new products will not work as designed.
- There are millions of sprinkler nozzles within the IEUA service area that may be retrofitted with high efficiency heads.
- Measures are professionally installed by qualified contractors.

CONSIDERATIONS

- There are very few contractors in the market willing and able to perform small repair projects.
- There may be some liability in making repairs for customers.
- Sufficient funding must be budgeted to meet high activity demands.

SMART CONTROLLER INSTALLATION PROGRAM (LARGE AND SMALL)



The Smart Controller Installation Programs (Large Retrofit and Small Site Controller Upgrade) offer the installation of smart irrigation devices, free to the customer.

The Program offers:

- Irrigation system evaluations
- Smart cloud-based controller upgrades
- High-efficiency sprinkler nozzle retrofits (based on eligibility)

To participate in the Small Site Controller Upgrade Program, customers must attend an educational workshop or watch an educational video prior to the installation to ensure they can program and maintain the controller.

Targeting customers who exceed their water budgets for participation in this program will help boost cost effectiveness as well as assist Customer Agencies in meeting the impending State standards.

WATER SAVINGS (PER UNIT)	INCENTIVE	COST EFFECTIVENESS	CUSTOMER AGENCY APPLICABILITY
High Efficiency Nozzle (single family) = 860 gallons per year Smart Controller (single family) = 13,460 gallons per year High Efficiency Nozzle (>acre) = 2,263 gallons per year Smart Controller (>acre) = 104,994 gallons per year	*Small Controller Upgrade:* IEUA = $383 per site, MWD = $256, Total = $639 *Large Retrofit:* IEUA = $639 per site, MWD = $187, Total = $826	*Small Controller Upgrade:* IEUA Only = $1,060, IEUA and MWD Combined= $1,769 *Large Retrofit:* IEUA Only = $234, IEUA and MWD Combined= $302 *Combined Program:* IEUA Only = $531, IEUA and MWD Combined= $826	Applicable for all Agencies
MARKET POTENTIAL	**TARGET MARKET**	**CUSTOMER INTEREST**	**IMPLEMENTATION FEASIBILITY**
High	Single-family properties with large turf areas	Medium	Easy with outsourced services

SMART IRRIGATION DIRECT INSTALLATION (LARGE AND SMALL)

REASONING

- Top water users and large landscape properties offer maximum water savings due to the expansive volume of acreage of irrigated lawns and gardens.
- Single family properties with irrigated area have controllers and spray heads, but most do not have the latest smart irrigation technologies.
- The smart irrigation package includes proven technologies that will be appealing to customers.
- Measures are professionally installed ensuring quality installations and programming.

CONSIDERATIONS

- High cost to provide direct installations.
- Limited number of large residential sites.
- Sometimes customers do not buy into new measures, specifically programming of the controller and overriding the schedule efficiency.

LANDSCAPE EVALUATION AND AUDIT PROGRAM (LEAP)

The Landscape Evaluation and Audit Program offers customers a comprehensive outdoor water use evaluation. Note that there are landscape surveys offered by MWD. These are abbreviated versions of the evaluations conducted through the regional program.

The landscape evaluations are free to customers and provide an assessment of a site's irrigation system, the controllers, valves, heads, layout, and performance including the following:

- Pressure testing
- Valve operation per controller
- Determination of the landscape's water needs.
- Generation of a water budget based on the local evapotranspiration and irrigated landscape area.

The Program's landscape professional also evaluates landscape design, vegetation types and local conditions for potential reductions in water use. The customer receives a report that outlines recommended water efficiency measures and available programs and incentives.

WATER SAVINGS (PER UNIT)	INCENTIVE	COST EFFECTIVENESS	CUSTOMER AGENCY APPLICABILITY
Single Family: 45,619 gallons per year Commercial: 299,783 gallons per year	Free to customer For IEUA and Customer Agencies Single Family: $238 Commercial: $294	Single Family: $362 per acre-foot Commercial: $639 per acre-foot	Applicable for all Agencies
MARKET POTENTIAL	**TARGET MARKET**	**CUSTOMER INTEREST**	**IMPLEMENTATION FEASIBILITY**
Medium	Commercial and HOA properties with large turf areas	Medium	Easy – CBWCD conducts turn-key services.

REASONING

- Provides cost effective water savings.
- Establishes a relationship with the customer.
- Identifies site-specific water-saving opportunities.
- Links customer with the most appropriate programs and services.

CONSIDERATIONS

- To ensure projects are completed and water savings are achieved, it is necessary to provide follow-up and concierge-type services for customers.

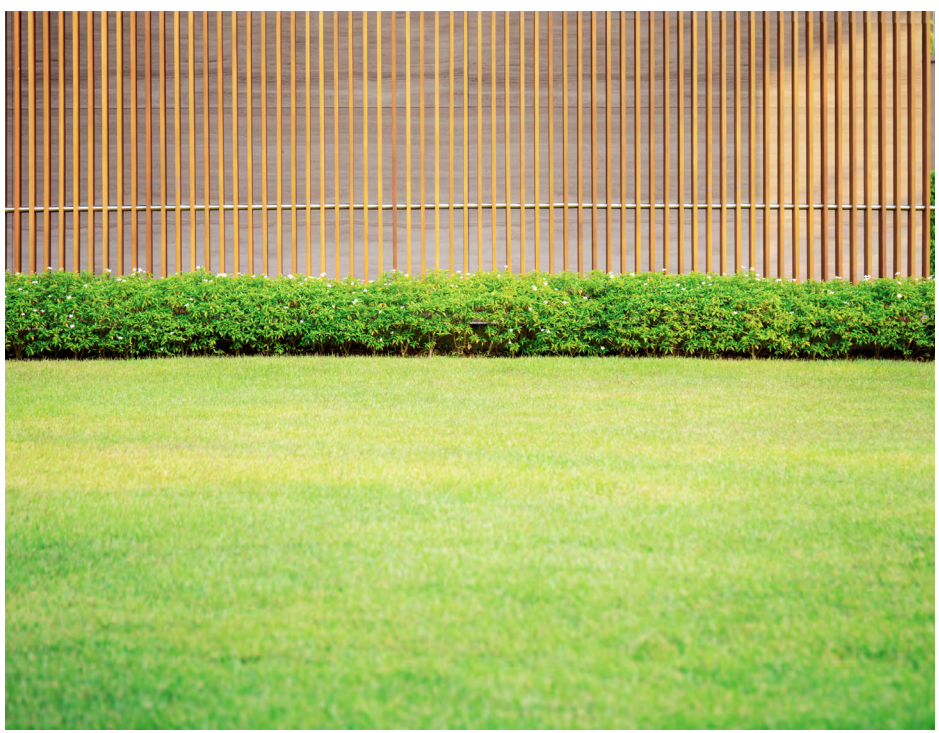
Additional Programs for Consideration

Also, during Phase 1 of the planning process IEUA and the Customer Agencies identified two projects for consideration that were not selected but are still viable options.

1. ***Large Landscape Concierge Program with Pay-for-Performance Incentives***- This program specifically targets the exceptionally high-water use properties, offering step-by-step customer guidance and services, referred to as a "customer concierge" water efficiency program. Large landscapes that are currently being overwatered are the top opportunity for water savings. Therefore, targeting these sites with valuable programs and services is the most effective way to comply with the future State Framework legislation. A consulting firm would be hired to conduct site assessments and guide customers through every step of program implementation. These properties could range from HOA common areas to commercial properties and public sector customers.

   The assessment would be conducted meter-by-meter, providing recommendations for repairs, equipment upgrades, and turf replacement. The assessment report would include prioritized projects, return on investment calculations, and a plan of action to complete the projects. The consultant would present findings to property owners and managers, HOA Committees, Boards, and other stakeholders to gain approval. In addition, the consultant would provide support throughout the project implementation and obtaining rebates. Based on industry-accepted or engineering savings estimates, the program could offer standard set incentives or pay-for-performance. This way, the customer and landscape contractor, based upon the assessment findings, can prioritize the best "bang for the buck" upgrades, including repairing irrigation systems, replacing non-functional turf, and installing smart irrigation technologies.

IEUA is in the process of submitting a proposal to SAWPA to secure grant funds for this program, available through DWR Proposition 1, Round 2. IEUA has partnered with other Upper Watershed water agencies in the submittal, including Western MWD, Eastern MWD, and San Bernardino Valley Water District.



2. ***The Online Store***- An innovative way to promote and distribute water-saving products such as showerheads, smart controllers, and leak detection devices is through an Online Store. Products would be free or purchased with a small co-pay and then shipped directly to customers' homes. Customers have come to expect the convenience of online purchases, even more so during the COVID pandemic. This format will increase program response as compared to traditional rebate programs.

   Online stores can also be a central hub for customers to access detailed product information; view reviews posted by similar shoppers; compare prices, and purchase water-efficient products.

   This program can be marketed to serve all of the diverse communities of the IEUA service area. Showerheads and aerators would be offered for free and appeal to lower-income parts of the community. Smart controllers and high-tech devices can be offered for a co-pay to customers interested in smart technologies. The program would have low to no out-of-pocket expenses, as desired by IEUA or the Customer Agencies, thereby overcoming the cash outlay barrier.

   IEUA is currently evaluating Online Store platforms available in the market today.

Agency Roles

IEUA Role

Over the upcoming years, IEUA's role is to support Customer Agencies in their efforts to meet legislative efficiency standards and objectives. This role will encompass several duties, including:

- Administering selected Regional WUE Programs.
- Obtaining outside vendors and consultants as necessary.
- Assisting Customer Agencies, when requested, in developing local programs and plans.
- Developing operation plans, procedures, and schedules for each regional program.
- Securing outside funding through local, state, and federal grants.
- Building and maintaining data and information tools.
- Monitoring program performance and adjusting as necessary.
- Tracking and reporting production and progress towards goals for each program and the region.

Customer Agency Roles

With the Customer Agencies responsible for meeting the State Framework efficiency standards, they have a vested interest in aggressively pushing forward with a plan that builds on the Regional WUE Plan. To bolster the success rate of the Regional WUE Programs, Customer Agencies will need to implement local programs and initiatives and promote Regional WUE Programs. Retail agency duties will include:

- Request Flex funding for local programs and educational initiatives.
- Implement local programs and educational initiatives.
- Conduct outreach to customers.
- Track and report activity and progress towards goals for each program.

FY22/23 Budget

FY 2022-23 is the second year of IEUA's adopted biennial budget. IEUA has a budget of $1.6 Million for WUE programs. In addition, IEUA has a budget of $641,263 from the Proposition 1 Integrated Regional Water Management (IRWM) Implementation Grant and $300,000 of drought funds carried forward from prior years for a total program budget of $2,541,263. Note that unspent funds will be carried forward to the next fiscal year to support future WUE programs.

Annual IEUA Program Budget

Customer Agency	2030 WUO
Annual Water Use Efficiency Budget	$1,600,000
Reserves – SAWPA Prop 1 Landscape Grant ($712,514-10% Reserve)	$641,263
Drought Funds Balance	$300,000
Total	**$2,541,263**

Seventy percent of the Regional WUE Program budget will be allocated for Core Programs and 30% for Flex Programs.

Core vs. Flex Budget

	% of Program Budget	Budget Amount
Core	70%	$1,778,884
Flex	30%	$762,379
Total		**$2,541,263**

Core Programs Budget

As stated above, the FY 22/23 Core Programs include:

1. All IEUA supplemental rebates for select SoCal WaterSmart devices
2. All IEUA WUE programs for which the combined MWD & IEUA cost per acre-foot is lower than the 2022 cost per acre-foot for MWD's Tier 2 treated water ($1,146/AF)
3. Turf replacement rebate contribution of $1/square foot
4. CalWEP/AWE annual membership dues
5. Sprinkler System Tune-up Program
6. Smart Controller Installations (Small and Large)

The SoCal WaterSmart supplemental device funding and additional Turf Replacement rebate contributions are subject to budgetary caps and will be dispersed on a first-come, first-serve basis.

Customer Agencies are responsible for marketing programs and promoting activity within their respective service area.

Core Program Budget by Program

Program	IEUA Budget	Outside Funding	Total
CalWEP/AWE Annual Membership Dues	$20,000	MWD pays $20,000*	$20,000
SoCal WaterSmart Device Rebates	$200,000	MWD pays base incentive estimated at $230,000**	$200,000
Turf Replacement Rebates	$259,000	MWD pays base incentive estimated at $518,000 **	$259,000
Sprinkler System Tune-up Program	$500,000	$204,522 ***	$704,522
Smart Controller Installations (Small)	$500,000	$82,510 ***	$582,510
Smart Controller Installations (Large)	$300,000	$49,506 ***	$349,506
Total	**$1,779,000**	**$356,538**	**$2,115,538**

**MWD pays 50% of CalWEP/AWE dues for all of its member agencies.*

***MWD pays the base incentive for SoCal WaterSmart Device and Turf Replacement Rebates.*

****MWD provides Member Agency Administered Program funding for locally administered programs.*

Flex Program Budget

Thirty percent of the budget ($762,379) is available to Customer Agencies for Flex project funding. Projects under Flex are not required to have verifiable water savings but must demonstrate a relationship to water use efficiency. The allocation of Flex funds for the FY 22-23 budget will be proportional to each Customer Agency's contribution to the previous year's MEU revenue. Based upon the MEU contribution for FY 20/21, the allocation of Flex funds will be allocated as follows:

Flex Program Budget by Customer Agency

Agency	MEU Ratio	Proportionate Share of Budget
Chino	9.559%	$72,876
Chino Hills	9.616%	$73,313
CVWD	25.759%	$196,381
FWC	21.950%	$167,346
MVWD	5.332%	$40,650
Ontario	18.614%	$141,913
SAWCo	0.453%	$3,456
Upland	7.980%	$60,840
WVWD	0.735%	$5,605
Total	**100%**	**$762,379**

Equity in Customer Agency

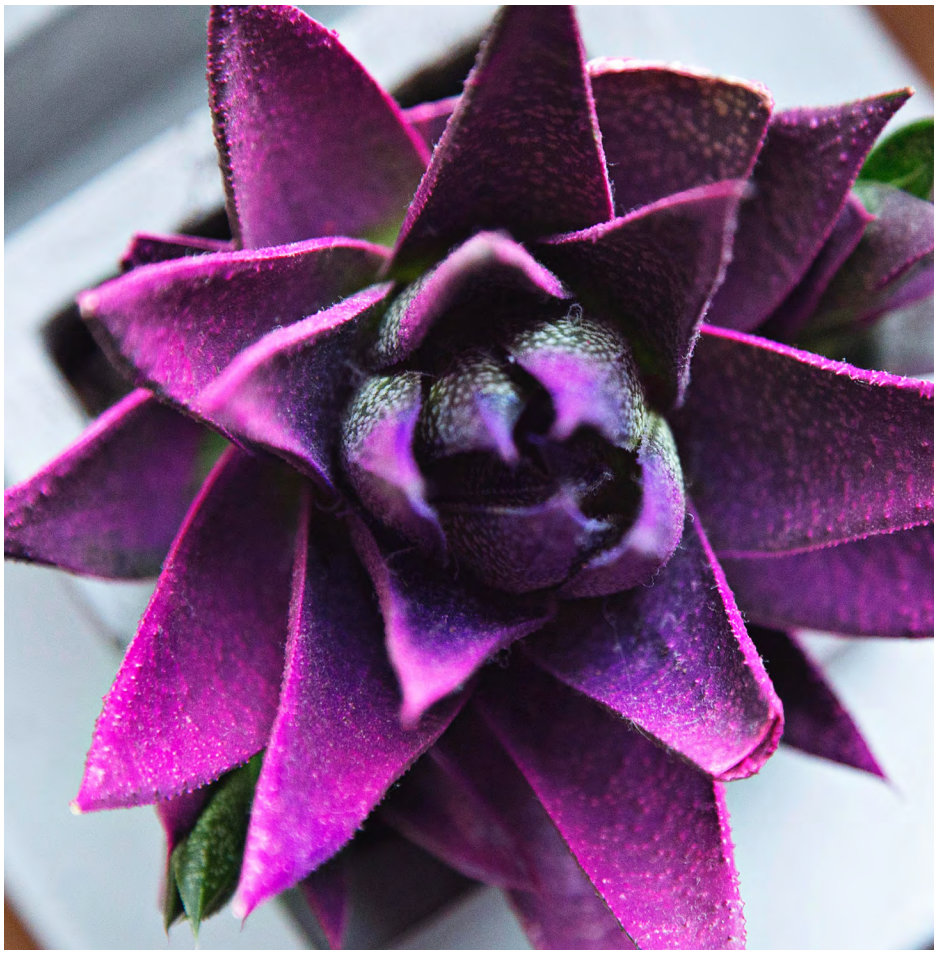
Flex Program funds, as well as, Landscape Tune-up and Smart Irrigation Direct Installation funds, will be allocated to Customer Agencies based on each Customer Agency's percent contribution to the previous year's MEU revenue. **This results in 81% of the Regional WUE Program's budget being allocated to each Customer Agency based on their contribution.** The new funding format aligns more directly with the respective benefits received by each Agency than was seen under the traditional Regional WUE Business Model. The remaining Core funding (19%) provides regional benefits to all Customer Agencies.

Proportional Share of Program Budgets

Agency	MEU Ratio	Flex Programs	Tune-Ups	Small Controller Upgrade	Large Smart Irrigation	Total
Chino	9.559%	$72,876	$47,795	$47,795	$28,677	$197,143
Chino Hills	9.616%	$73,313	$48,082	$48,082	$28,849	$198,325
CVWD	25.759%	$196,381	$128,795	$128,795	$77,277	$531,248
FWC	21.950%	$167,346	$109,752	$109,752	$65,851	$452,702
MVWD	5.332%	$40,650	$26,660	$26,660	$15,996	$109,966
Ontario	18.614%	$141,913	$93,072	$93,072	$55,843	$383,901
SAWCo	0.453%	$3,456	$2,267	$2,267	$1,360	$9,349
Upland	7.980%	$60,840	$39,901	$39,901	$23,941	$164,584
WVWD	0.735%	$5,605	$3,676	$3,676	$2,206	$15,163
Total	**100%**	**$762,379**	**$500,000**	**$500,000**	**$300,000**	**$2,062,381**

Estimated Annual Activity and Water Savings FY 22/23

The table to the right displays the projected annual activity for each measure. The total includes activity for both Core and Flex Programs, exclusive of local programs.



FY 22/23 Activity by Measure

Measure	Annual Activity
CII Turf Replacement Rebates	139,000
Res Turf Replacement Rebate	120,000
SCWS CII High Efficiency Sprinkler Nozzle Rebates	4,000
SCWS Res High Efficiency Sprinkler Nozzle Rebates	4,000
Sprinkler Tune-Up Program	1,362
SCWS Res High Efficiency Clothes Washer Rebates	1,000
Small Controller Upgrade Program	782
SCWS Res Smart Controller Rebates	600
Large Smart Irrigation Program	200
SCWS CII Premium Efficiency Toilet Rebate	200
SCWS Res Premium Efficiency Toilet Rebates	200
SCWS CII Laminar Flow Restrictor Rebates	150
SCWS Large Landscape Smart Controller Rebates	100
SCWS Res Leak Detection Device Rebate	100
SCWS Plumbing Flow Control Rebates	25
SCWS Rain Barrel Rebates	25

Regional Cost and Benefits

The Phase 2 one-year plan is estimated to have lifetime water savings of 5,066 acre-feet at a cost to IEUA and the Customer Agencies of $357 per acre-foot. The cost per acre-foot, when including MWD funds, is $718. Either scenario falls well below MWD's Tier 2 rate of $1,146 per acre-foot. The avoided purchases equate to a net present value (NPV) of over $2,730,938 to IEUA. The overall benefit to cost ratio equates to 3.3.

Plan Overview	
Program Cost per Acre-foot – IEUA Only*	$357
Program Cost per Acre-foot - MWD and IEUA*	$718
Annual Water Savings	796 acre-feet
Lifetime Water Savings	5,369 acre-feet
Core Program Annual Water Savings	599 acre-feet
Flex Program Annual Water Savings	197 acre-feet
Avoided Costs	$2,730,938
Annual Budget*	$2,541,263
Benefit to Cost Ratio	3.3

**Does not include administrative or operational costs.*

Cost-Effectiveness by Measure

The tables below display the cost-effectiveness for the selected Core Program measures from both IEUA-only cost and the combined IEUA and MWD cost.

Cost-Effectiveness by Measure – IEUA and MWD Combined Cost

Measure	Cost per Acre-foot
SCWS CII Plumbing Flow Control Rebates	$136
SCWS CII High Efficiency Sprinkler Nozzle Rebates	$153
SCWS CII Laminar Flow Restrictor Rebates	$185
SCWS Large Landscape Smart Controller Rebates	$320
SCWS Res Leak Detection Device Rebate	$341
SCWS Res High Efficiency Sprinkler Nozzle Rebates	$403
SCWS Res Smart Controller Rebates	$443
SCWS Res High Efficiency Clothes Washer Rebates	$559
SCWS CII Premium Efficiency Toilet Rebate	$630
SCWS CII Premium Efficiency Toilet Rebates	$731
Sprinkler Tune-Up Program	$803
Res Turf Replacement - Combined $3	$824
Large and Small Smart Controller Program	$826
CII Turf Replacement - Combined $3	$1,123
SCWS Res Rain Barrel Rebates	$3,918

Cost-Effectiveness by Measure – IEUA Cost Only

Measure	Cost per Acre-foot
SCWS CII Plumbing Flow Control Rebates	$68
SCWS CII High Efficiency Sprinkler Nozzle Rebates	$92
SCWS CII Laminar Flow Restrictor Rebates	$92
SCWS Large Landscape Smart Controller Rebates	$96
SCWS Res Leak Detection Device Rebate	$128
SCWS Res Smart Controller Rebates	$221
SCWS Res High Efficiency Sprinkler Nozzle Rebates	$242
SCWS Res High Efficiency Clothes Washer Rebates	$262
Res Turf Replacement - IEUA $1	$275
CII Turf Replacement - IEUA $1	$374
SCWS CII Premium Efficiency Toilet Rebate	$378
SCWS Res Premium Efficiency Toilet Rebates	$439
Sprinkler Tune-Up Program	$475
Large and Small Smart Controller Program	$531

Cost-Benefit and Net Present Value Included in Core Programs – IEUA and MWD Combined Cost

The avoided purchases equate to an NPV of $3,458,541. The overall benefit to cost ratio equates to 3.3.

The table to the right details the NPV and benefit-to-cost ratio for each selected Core Program measure. The Residential Turf Replacement Rebates and Large Landscape Smart Controller Rebates provide the highest NPV.

Cost Benefit and Net Present Value– IEUA Cost Only

Measure	Avoided Costs/ Net Present Value	Cost/Benefit Ratio
Res Turf Removal Rebate - IEUA $1	$861,376	4
SCWS Large Landscape Smart Controller Rebates	$604,693	12
Large and Small Smart Controller Program	$513,598	2
Sprinkler Tune-Up Program	$418,087	2
CII Turf Removal Rebates - IEUA $1	$339,006	3
SCWS Res High Efficiency Clothes Washer Rebates	$260,262	4
SCWS Res Smart Controller Rebates	$205,894	5
SCWS CII Premium Efficiency Toilet Rebate	$129,936	3
SCWS CII High Efficiency Sprinkler Nozzle Rebates	$69,553	13
SCWS Laminar Flow Restrictor Rebates	$23,023	13
SCWS Res High Efficiency Sprinkler Nozzle Rebates	$17,034	5
SCWS Premium Efficiency Toilet Rebates	$12,035	3
SCWS Plumbing Flow Control Rebates	$4,044	17
Total	**$3,458,541**	**3.3**

7. Business Model Assessment and **Plan Update**

Business Model Assessment

The Hybrid Model will be implemented for two years and assessed at the end of each fiscal year for its effectiveness. Categories to be reviewed for performance include:

- Customer response/participation
- Amount of budget spent
- Water savings vs goal
- Cost-effectiveness
- Resource availability
- Program continuity and customer service
- Ease of administration

The assessment will not only look at the Business Model as a whole, but also at individual components of the plan such as:

- ✔ How well has each program performed, both Regional WUE Programs and local ones?
- ✔ Which programs are customers choosing?
- ✔ Are the administrative requirements for the WUE Regional Program overly burdensome?
- ✔ Do the region and Customer Agencies have the necessary resources to reach the goals?
- ✔ Did IEUA secure additional grant dollars or are there other grant funds available?
- ✔ Is the drought still impacting the region?
- ✔ What are the final State efficiency standards?
- ✔ How close is each Customer Agency in meeting their WUO?
- ✔ How much water does the region need to reduce?
- ✔ What is the new MEU rate?
- ✔ Do the water savings goals from the UWMP match the needs of the Region?

Regional WUE Program Evolution - Program Committees

To best evaluate ongoing performance, meet water savings goals with new and innovative ways, and advocate for fair legislation IEUA is forming three committees. The committees will include members from the Customer Agencies, IEUA staff, and consultants as deemed necessary. The three committees are:

1 New Program Design Committee

The New Program Design Committee will be tasked with researching and evaluating new technologies and WUE programs such as an Large Landscape Concierge program. The committee will assess existing programs and develop potential new programs. The information will be presented to the WUE Workgroup for consideration and based on group concurrence, new programs will be added to the new Core plus Flex Business Model feature in future years.

2 Accountability Committee

The Accountability Committee will track program activity against the region's goals for demand management, financial commitment, and success of the new WUE Business Model. The Committee will work over the next year to establish a Regional WUE Dashboard. The Dashboard will track WUE activities, savings per dollar invested, Flex Program commitments, GPCD as reported by the State, and more. This data and analysis will be used to inform the next iteration of the WUE Business Plan and the Urban Water Management Plan.

3 Advocacy Committee

The Advocacy Committee will be responsible for tracking WUE policy and funding opportunities with DWR, SWRCB, MWD, USBR etc. The Committee will advocate for policies and legislation endorsed by the regional stakeholders. In addition, the Advocacy Committee will work to secure funds for the region.

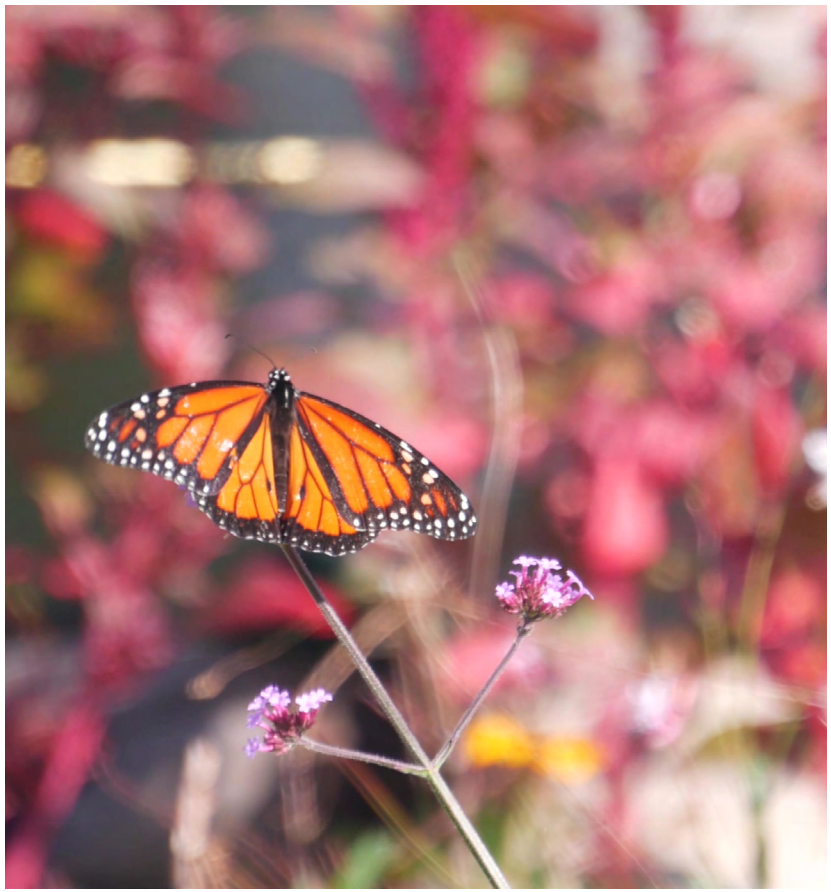
Urban Water Management Plan Integration

Each water agency is required to develop an Urban Water Management Plan (UWMP) every five years. IEUA's 2020 UWMP has identified the need for WUE to meet regional demands. It will be critical to reconcile the projected water savings from both the UWMP and the WUE Business Plan. If the associated demand reduction from WUE does not meet the requirements of the UWMP, modifications will need to be made to the Regional WUE Program budget to remedy this situation. Below is the chart showing the projected water savings from both the UWMP and the WUE Business Plan as the delta. Currently, there is an 1,814 acre-foot shortfall for the region as stated in the WUE Business Plan.

Annual Water Savings Projections UWMP vs WUE Business Plan

Fiscal Year	Annual Water Savings (AF) – per IEUA UWMP	Actual or Projected Water Savings (AF) – WUE BP	Delta Between UWMP and WUE BP (AF)
2020/21	691	546 (actual)	-145
2021/22	1,340	762	-578
2022/23	1,851	760	-1,091
2023/24	2,333	TBD	NA
2024/25	2,792	TBD	NA

In July 2026, the next iteration of the UWMP will be due to DWR. Development of the WUE Business Plan should coincide with this timing. The projected water savings and required budget to achieve those savings from both planning documents should align.



MEU Rate-Setting Process

As discussed in previous sections, a portion of the WUE budget is funded through MEU revenues. The current MEU rates are adopted through FY 24/25.

IEUA's MEU rate was implemented on October 1, 2016 following a 2015 rate study, for which IEUA received stakeholder input during several workshops. The rate is in effect through FY 2024-2025 and any change to IEUA's rate structure would require a new rate study.

It will be critical that the new rates are designed to cover IEUA's future budget needs for WUE.

The new MEU rates are anticipated to be adopted by IEUA sometime between January - February 2025, to allow Customer Agencies proper time for implementation of the Prop 218 process. IEUA will initiate the rate study six to nine months before the scheduled adoption date to ensure proper vetting of the new rates by Customer Agencies.

Key Planning Dates

	2022	2023	2024	2025	2026	2027 - 2029	2030
State Framework Legislation	Prep for WUO Compliance	Prep for WUO Compliance	WUO Annual Report Due Jan 1 WUO Standards **55 GPCD 0.80 ETAF***	WUO Annual Report Due Jan 1	WUO Annual Report Due Jan 1 New WUO Standards **47 GPCD***	WUO Annual Report Due Jan 1	WUO Annual Report Due Jan 1 New WUO Standards **42 GPCD* 0.65 ETAF***
WUE Business Plan	Phase 2 WUE BP	Phase 2 WUE BP Assessment & WUE BP Modifications	2025 WUE BP Development				2030 WUE BP Development
UWMP			2025 UWMP Development	2025 UWMP due to DWR July 1, 2026			2030 UWMP Development
MEU Rates		MEU Rate Study	New MEU Rate Adoption				
	MEU Rates set through FY 24/25			**New MEU Rates**			

*DWR recommended standards. Standards not yet finalized.

Appendix

STATE FRAMEWORK DESCRIPTION

Following the California drought of 2012-2016, Governor Brown issued Executive Order B-37-16. This Executive Order directed the State Water Resources Control Board (SWRCB) and the Department of Water Resources (DWR) to jointly work on setting urban water use targets and propose a framework for efficient use. The Framework was released in 2017, "Making Water Conservation a Way of Life," outlining actions that water suppliers can take to help their customers use water more efficiently. The next steps were passing AB 1668 and SB 606, signed into effect in May 2018. These bills provide an interrelated framework meant to strengthen water resiliency by establishing standards for efficient use. DWR was tasked with developing these standards to recommend to the SWRCB, who will formally adopt them in 2023.

WHAT THE STATE FRAMEWORK MEANS TO RETAIL AGENCIES

Water agencies will need to calculate and submit their urban water use objective to DWR by January 1, 2024. The Urban Water Use Objective (UWUO) is the sum of five calculated water volumes based on the standards and variances (WC Section 10609(c)):

1. Aggregate estimated efficient indoor residential water use
2. Aggregate estimated efficient outdoor residential water use.
3. Aggregate estimated efficient outdoor irrigation of landscape areas with dedicated irrigation meters or equivalent technology for commercial, industrial, and institutional (CII) water use.
4. Aggregate estimated efficient water losses.
5. Aggregate estimated water use for variances approved by the State Water Board.

Using the adopted standards, each urban retail water agency will annually, beginning January 1, 2024, calculate its urban water use objective. Agencies will base the objective on the water needed in its service area for efficient indoor residential water use; outdoor residential water use (calculated water budget); commercial, industrial and institutional (CII) irrigation with dedicated meters (calculated water budget); and reasonable amounts of system water loss, along with considerations of other unique local uses (i.e., variances) and a "bonus incentive" or credit for potable water reuse. Water agencies must complete water loss calculations using the SWRCB economic model.

The Standards of the Urban Water Use Objective

Aggregate Residential Indoor Use

Aggregate Residential Outdoor Use

Aggregate CII Outdoor Use

CII water use with dedicated irrigation meters

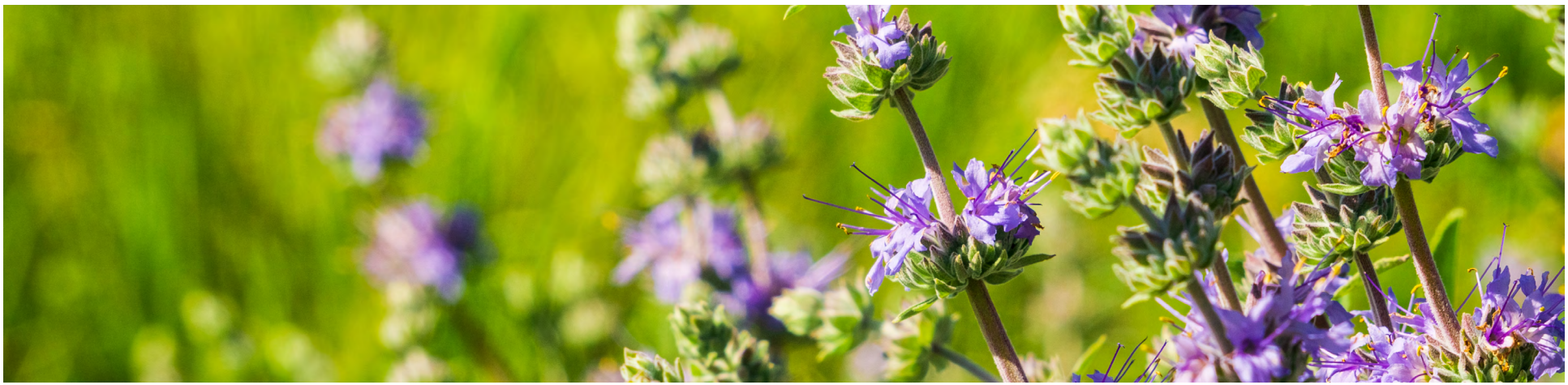
Aggregate Water Loss

Aggregate Variances

Bonus Incentives

Up to 15% of objective

Water agencies can add a bonus incentive volume to the UWUO for potable reuse water delivered to residential customers and CII dedicated irrigation meter landscapes.



THE STANDARDS

Each of the five standards has various components necessary to understand to calculate UWUOs accurately. An agency does not need to meet each objective individually but rather the aggregate or total objective. The following section describes each standard as recommended by DWR to the SWRCB. These are the **recommendations as of January 2022** and may change before the SWRCB officially adopts them in 2023.

Indoor Residential Water Use

The indoor standard is based on a retail agency's population multiplied by the established GPCD for that specific year. As seen below, GPCD will decrease over time.

2020	2025	2030
55 GPCD	47 GPCD	42 GPCD

Outdoor Residential Water Use

The indoor standard is based on a retail agency's population multiplied by the established GPCD for that specific year. As seen below, GPCD will decrease over time.

- 100% of the **irrigable irrigated** (II) area, and
- 20% of the **irrigable, not irrigated** (INI) area.

Parkway strips are not included.

The landscape area measurement (LAM) data summarizing II and INI was provided to each retail water agency from DWR in 2020.

The Outdoor Residential Standard for single and multi-family parcels is based on the formula:

(100% Irrigable Irrigated Area + 20% Irrigable Not Irrigated Area) x Evapotranspiration Rate x ET Adjustment Factor (Converted to CCF & AF)

Evapotranspiration Adjustment Factor

Evapotranspiration adjustment factor (ETAF) is a function of how much water the plants need and how efficiently the irrigation system works. These two things influence how much water needs to be applied to the landscape. The lower the ETAF, the more efficient use of water. As with the GPCD, the ETAF will decrease over time. Below are the ETAFs recommended by DWR for residential properties.

	2023-2029	2030-Forward
Existing Structures	.80	.65
New Structures*	.55	.55
Special Landscaped Areas (SLAs)	1	1

**Or current MWELO ETAF*

CII / Dedicated Irrigation Meter Outdoor Water Use

The commercial, industrial, and institutional (CII) outdoor water use component of the UWUO refers to CII properties with dedicated irrigation meters (DIMs). A dedicated irrigation meter is **a water meter that exclusively meters water used for outdoor watering**. Like the residential indoor standard, the CII outdoor water use standard is a calculated budget for efficiently irrigating CII/DIM landscape areas within a retail agency's service area. The Outdoor CII Standard is based on the formula:

Total Landscape Area x Evapotranspiration Rate x ET Adjustment Factor (Converted to CCF & AF)

Below are the ETAFs recommended by DWR for properties irrigated with dedicated irrigation meters.

	2023-2029	2030-Forward
Existing Structures	.80	.65
New Structures*	.45	.45
Special Landscaped Areas (SLAs)	1	1

**Or current MWELO ETAF*

Mixed-Use Meters

Mixed-use meters (MUMs) on commercial properties measure outdoor water usage for irrigation and indoor water usage. Only properties with landscaped areas of one acre or more are subjected to the standard. It will be necessary for each agency to identify these properties and measure their landscape area.

Based upon the current recommendation, agencies will have three compliance paths for these properties:

1. Convert irrigation water use to a dedicated irrigation meter or equivalent technology.
2. Establish an in-lieu technology program. This program must have demonstrated improvement of water use efficiency, and companion best management practices are required. Water agencies must report progress in their Annual Report.
3. Implement best management practices for a subset of commercial MUMs. Properties include five property/business types to be determined by DWR/SWRCB, the top 2.5% of individual accounts, and the top 20% by sector. For the five property/business types determined by DWR/SWRCB, agencies must assess their accounts and assign the appropriate property/business type. This method also requires developing implementation plans to ensure improvement in the efficient use of water at these properties. And again, agencies must report progress annually.

Variances

Water agencies may request a variance for unique water uses that may have a negative impact on their UWUO. Below are the recommended variances:

- Evaporative coolers
- Horse corrals
- Horse and livestock
- Seasonal populations
- Soil compaction and dust control
- Fire protection
- Ponds and lakes to sustain wildlife
- Agriculture
- Irrigation with high TDS
- Unexpected adverse conditions
- Medical devices (deferred)

DWR recommends that the sum of variance water use cannot be more than 5% of a retail agency's total UWUO.

Water Loss

The Water Loss Standard is the volume of real and apparent water lost in a water agency's distribution system expressed in gallons per connection. The water loss component of the Framework is derived from a separate bill, SB 555. This legislation directs water agencies to submit annual water loss audits and meet a volumetric water loss standard. The standard is measured utilizing the economic model developed by the SWRCB. Water agencies are only required to meet the standard if the cost-to-benefit ratio of making improvements to reduce water loss is **greater than one**.

The Framework Timeline

2021

DWR

Final Standard Recommendations Sent to SWRCB

2022

SWRCB

Adopts Final Standards

Retail Agencies

- Assess Compliance
- Measure DIM Properties
- Identify MUMs with 1 Acre or More of Landscape
- Determine Gap
- Develop & Implement Plan to Meet WUO

2023

Retail Agencies

- Continue to Measure DIM Properties
- Identify MUMs with 1 Acre or More of Lanscape
- Implement Plan to Meet WUO

Submit Annual Loss Reports (July 1)

2024

Retail Agencies

Calculate WUO (Jan 1)

55 GPCD

0.80* ETAF

Submit Annual Water Use and Water Loss Reports

Begin 5 Year Compliance Path for CII

2025/26

Retail Agencies

GPCD Reduced to 47*

Calculate WUO

Submit Annual Water Use and Water Loss Reports

SWRCB

May Issue Conservation Orders for Agencies Not Meeting WUO

2027/28

Retail Agencies

Calculate WUO

Submit Annual Water Use and Water Loss Reports

SWRCB

May Issue Fines for Agencies Not Meeting WUO

2030

Retail Agencies

GPCD Reduced to 42*

ETAF Reduced to 0.65*

*DWR recommended standards. Standards not yet finalized.

Compliance & Penalties

Urban water agencies must meet their water use objective. Those that don't may be subject to SWRCB enforcement. Starting in 2024, the SWRCB may issue informational orders to urban water agencies that do not meet their water use objectives, and conservation orders starting January 1, 2026.

Failure to comply could result in fines to water agencies of $1,000 per day during non-drought years and $10,000 per day during declared drought emergencies and specific dry years.