



Regional Water Use Efficiency Programs Report

Fiscal Year 2019–2020



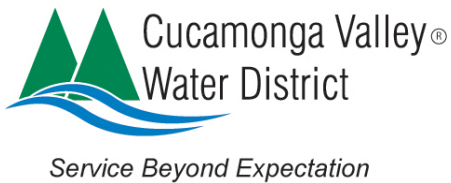
The background of the page is a photograph of a desert landscape. In the foreground, there are large, light-colored boulders and low-lying green and yellow desert shrubs. A paved road curves through the middle ground, with a few vehicles visible. In the background, a range of mountains is visible under a clear blue sky. The overall lighting suggests it might be late afternoon or early morning.

IEUA's WUE Mission

IEUA is committed to investing in our water supply for today and tomorrow through fiscal responsibility, efficient business practices, water supply management, and environmental stewardship.

Member Agencies

of Inland Empire
Utilities Agency



Letter from Shivaji Deshmukh, General Manager

As this year comes to a close, we recognize that 2020 was marked by significant and unforeseen challenges. We never could have predicted that the year would introduce a global COVID-19 health pandemic, devastating families and shuttering the doors of so many valued businesses.

This year has taught us that changes can happen suddenly and without warning. Yet for every glass half empty, there is a glass half full. Despite the trials this year has brought, there has been achievement.

First, IEUA and partner member agencies exceeded the volume of water savings projected in our 2015 WUE Business Plan. This herculean accomplishment came about because of the sound design and, more importantly, the superior day-to-day management by IEUA and member agency staff, as well as our program vendors.

Secondly, these savings were achieved through the delivery of highly cost-effective programs. IEUA spent just \$1.15 million for programs that delivered lifetime savings of 3,292 acre-feet, at a low IEUA cost of \$310 per acre-foot with a total cost of \$849 to all parties.

This Regional Water Use Efficiency Programs Report highlights these achievements. The results stand as testimony to the excellent performance delivered against the many obstacles put in the pathway.

While celebrating 2020 accomplishments, we must also recognize the heightened challenges ahead for us. It is essential that we continue to meet SBx7-7 20x2020 requirements while we prepare for the future California's State Framework Legislation, SB606 and AB1668. The new water use objectives will require adaptation, collaboration, and innovation by IEUA and its partner member agencies. IEUA and the regional partners have decades of experience working collaboratively and we possess all the skills necessary to meet these new standards.

Sustained reduction in water use will be met through the implementation of innovative WUE programs that help grow markets for water-efficient products, services, and practices. Securing outside funding for this work will remain a focus for IEUA.

IEUA is committed to continued success, working alongside our member agencies to overcome the challenges that lie ahead.

Shivaji Deshmukh



Shivaji Deshmukh, P.E.
General Manager

*Together in FY2020,
we deployed more
than **7,400**
water-saving
technologies and
services in our
service area,
resulting in annual
water savings of
408 acre-feet
(AF).*

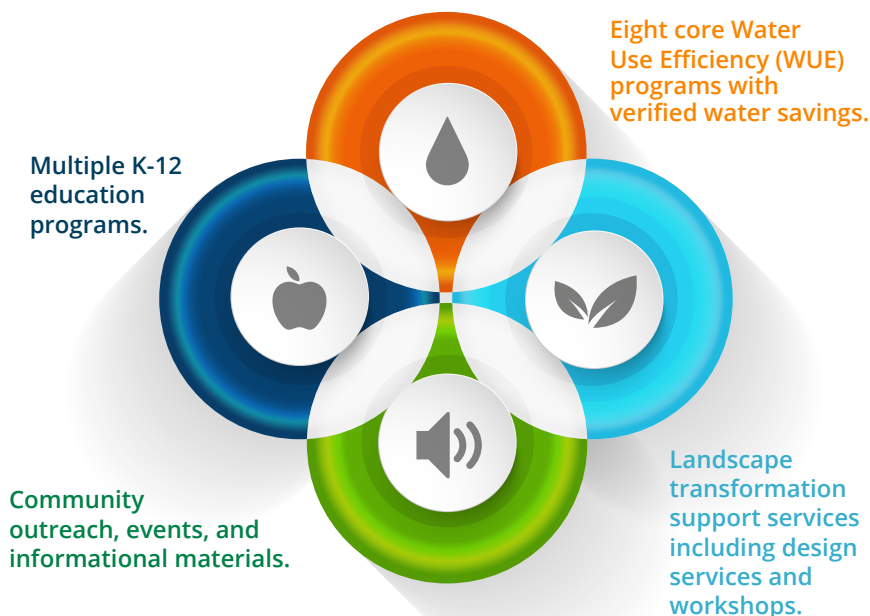


Highlights of the Year

July 1, 2019 to June 30, 2020

Fiscal year 2020 began with high expectations for the region's conservation efforts. As summer got into full swing, activity in all of IEUA's water use efficiency programs increased. The Sprinkler Tune-up Program launched with strong demand and it felt as though we would be on track to significantly increase customer participation from the low activity of post-drought years.

But as cases of COVID-19 multiplied in California, health precautions and economic uncertainty changed the upward trajectory of participation in these programs. Staff at the member agencies and IEUA had to rethink delivery of each program in order to keep customers, staff and contractors safe. Out of the disruption of those early days of the pandemic came the relaunch of programs with an emphasis on contactless and virtual delivery whenever possible. It is a testament to the resiliency and creativity of IEUA's member agencies and contractors that the programs were up and running again with minimal downtime. On behalf of and alongside its member agencies and despite the challenges posed by the global health pandemic, IEUA continued to implement a range of programs as well as educational and support services in FY 2020, including:



IEUA WUE staff provides a range of services to support regional WUE activities, including:

Program planning, performance tracking and evaluation.

Cost efficient centralized administration.

Procurement economies of scale for devices and vendor services.

Grant writing and procurement.

Vendor solicitation and contract management.

Budget management.

Legislative and regulatory compliance / support.

Key Accomplishments

Increased activity year-over-year, despite COVID-19 pandemic.



Annual savings of 408 acre-feet, lifetime savings of 3,292 acre-feet.



Cost-effective IEUA investment: 3-year payback at \$310 per acre-foot cost.



Leveraged \$1.6 million in outside funding.



Expanded budget and re-engineered the Sprinkler Tune-up Program to be the foundational program.



Launched innovative Leak Detection Program pilot.



A Special Consideration for COVID-19

COVID-19 has impacted everyone. In light of concern over basic needs such as public health and the economy, it's not a surprise that environmental issues including water conservation would take a back seat. Water conservation program activity throughout California has seen a steep decrease in participation.



The future remains uncertain, but most agree that the impacts of COVID-19 will be felt for some time. As IEUA and the member agencies look toward implementation of WUE programs in this new environment, we remain committed to ensuring the health and safety of our personnel, our contractors and our customers.

While conservation program participation is down, it's important to note that home improvement and eCommerce sales have increased. WUE programs need to leverage this new paradigm. A fresh look at the ways we have traditionally implemented our outreach, programs, and services will be required in this post-COVID-19 world. Among the accommodations and new practices, we foresee a continued shift to virtual or video-based workshops and services, a greater emphasis of bill savings in promotional materials, and evaluation of alternative program formats such as online stores and direct delivery of free and discounted products.

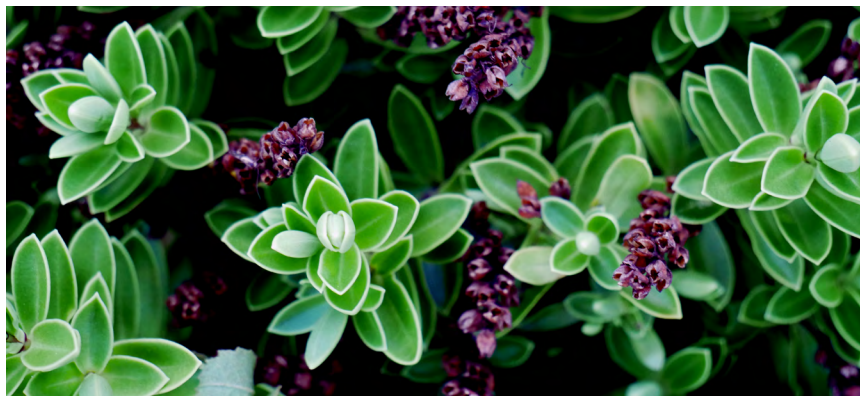


FY 2020 WUE Program Water Savings

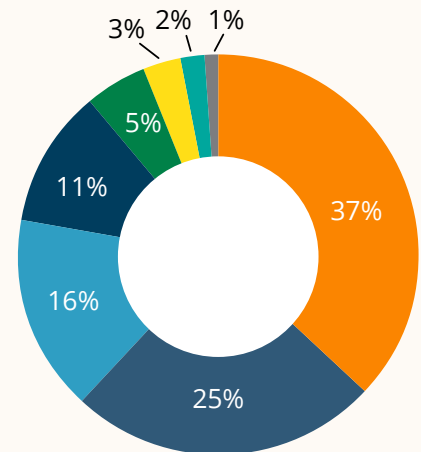
There are eight IEUA WUE programs with verifiable water savings. **These core programs saved 408 acre-feet annually and 3,292 acre-feet over the life of the measures.**

With the most savings, SoCal WaterSmart rebates represented 37% of the annual savings and 54% of the lifetime savings. Below are the annual and lifetime water savings for each program.

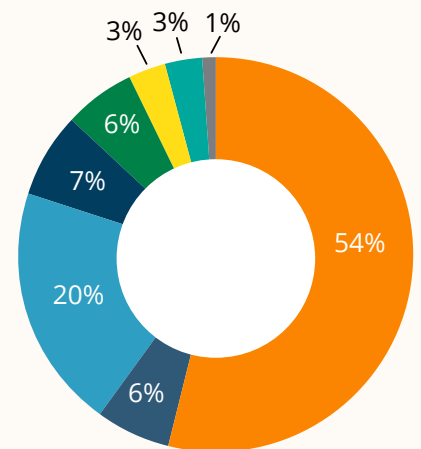
Program	Annual Savings (AF)	Lifetime Savings (AF)
SoCal WaterSmart Rebates	151	1,773
Sprinkler Tune-Ups	104	209
Turf Replacement	66	664
Landscape Audit & Evaluations	43	213
Smart Controller Upgrades	20	196
Large Landscape Retrofits	12	109
Leak Detection Incentives	8	83
Pressure Regulation	4	45
Total	408	3,292



Percent Annual Water Savings by Program



Percent Lifetime Water Savings by Program



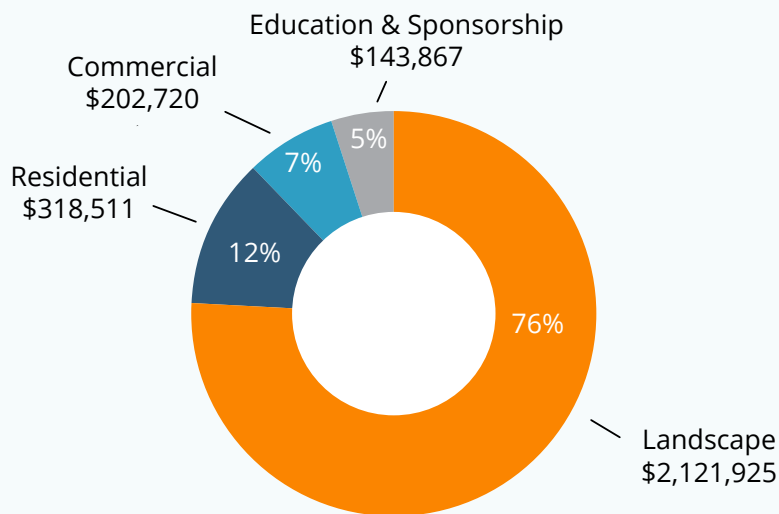
- SoCal WaterSmart Rebates
- Sprinkler Tune-Ups
- Turf Replacement
- Landscape Audit & Evaluations
- Smart Controller Upgrades
- Large Landscape Retrofits
- Leak Detection Incentives
- Pressure Regulation

FY 2020 WUE Program Cost and Cost Effectiveness

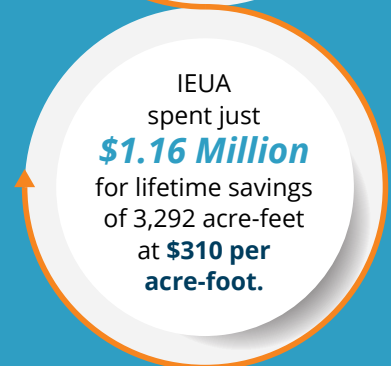
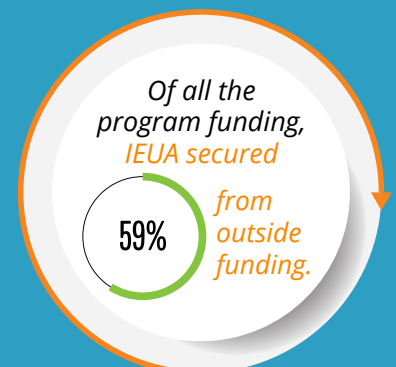
The total cost for FY 2020 WUE programs was \$2.8 Million.

76%, or \$2.1 Million, of the funds went to landscape and irrigation programs and services. \$318,511 was spent on residential programs, \$202,720 on commercial programs and \$143,867 on education and support services.

Program Funding by Sector



As shown in the chart below, IEUA continues to deliver highly cost-effective programs. IEUA spent just \$1.16 million for programs that delivered lifetime savings of 3,292 acre-feet, at a low cost of \$310 per acre-foot. Another way to view this is for every \$1.00 IEUA spent, IEUA and the member agencies received \$1.40 in benefits.



Below is a comparison of each core WUE program by funding source, total cost, IEUA payback and IEUA cost per acre-foot.

Program	Outside Funding	IEUA Funding	MWD Funding	Total	IEUA Payback (Years)	IEUA Cost per Acre-foot
SoCal WaterSmart Rebates	\$1,580	\$231,570	\$195,460	\$428,610	1.86	\$130
Landscape Audit & Evaluations	\$15,937	\$9,697	\$9,810	\$35,444	0.3	\$226
Leak Detection Incentives	\$0	\$19,017	\$0	\$19,017	2.75	\$228
Turf Replacement	\$108,089	\$309,638	\$972,200	\$1,389,927	5.62	\$466
Sprinkler Tune-Ups	\$0.00	\$94,602	\$69,786	\$164,389	1.15	\$476
Large Landscape Retrofits	\$2,976	\$71,143	\$72,210	\$146,329	7.37	\$650
Smart Controller Upgrades	\$0	\$186,171	\$96,096	\$282,267	11.43	\$949
Pressure Regulation	\$0	\$99,932	\$77,242	\$177,174	27.01	\$2,242
Total	\$128,582	\$1,021,770	\$1,492,804	\$2,643,157	3.02	\$310

Topping the list for cost-effectiveness is SoCal WaterSmart Rebates (not including Turf Replacement), which costs just \$130 per acre-foot and has a payback of 1.86 years. The second most cost-effective program is the Landscape Audit and Evaluation Program (LEAP), administered by Chino Basin Water Conservation District (CBWCD), which costs \$226 per acre-foot and earns a payback in just over three months. The Leak Detection Incentive Program is the third most cost-effective, at \$228 per acre-foot with a payback of 2.75 years. In FY 2020, IEUA funded the Leak Detection Incentive pilot entirely out of its own budget. Going forward Metropolitan will provide funding thus increasing the cost-effectiveness of leak detection programs.

The Pressure Regulation Program is the highest cost at \$2,242 per acre-foot, however the program is considered a highly valued customer service program. The program is now provided on a case-by-case for customers experiencing issues with indoor water pressure. Regardless of the high cost per acre-foot for the Pressure Regulation Program, the combined cost per acre-foot total for all programs, is a very low dollar amount of \$310 per acre-foot.





In addition to the core efficiency programs with active water savings, IEUA funds educational and local agency support programs. These programs and services provide an educational foundation for all WUE efforts. To the right is a list of the programs and their associated funding for FY 2020.

Service	Outside Funding	IEUA Funding	MWD Funding	Total
Landscape Transformation Customer Education				
Landscape Design	\$4,080	\$240	\$1,920	\$6,240
Landscape Classes	--	\$725	\$700	\$1,425
School Education				
National Theatre for Children	--	\$49,920	--	\$49,920
Garden in Every School	--	\$1,951	--	\$1,951
Shows That Teach	--	\$11,450	--	\$11,450
Member Agency Local Support & Funding				
WUE Support Tools	--	\$19,065	--	\$19,065
BMP Support	--	\$10,000	--	\$10,000
WUE Business Plan	--	\$1,330	--	\$1,330
CIMIS Station	--	\$3,960	--	\$3,960
CALWEP/ AWE Dues	--	\$15,418	\$15,418	\$30,836
Plumbing Handbooks	--	\$2,801	--	\$2,801
Pressure Gauges	--	\$3,389	--	\$3,389
Water Festival	--	\$1,500	--	\$1,500
Total	\$4,080	\$121,749	\$18,038	\$143,867

FY 2020 Member Agency Program Activity

The chart below shows the program activity and water savings for each member agency. Although there are a range of devices that can be installed, the chart provides an illustrative comparison of performance for each overarching program.

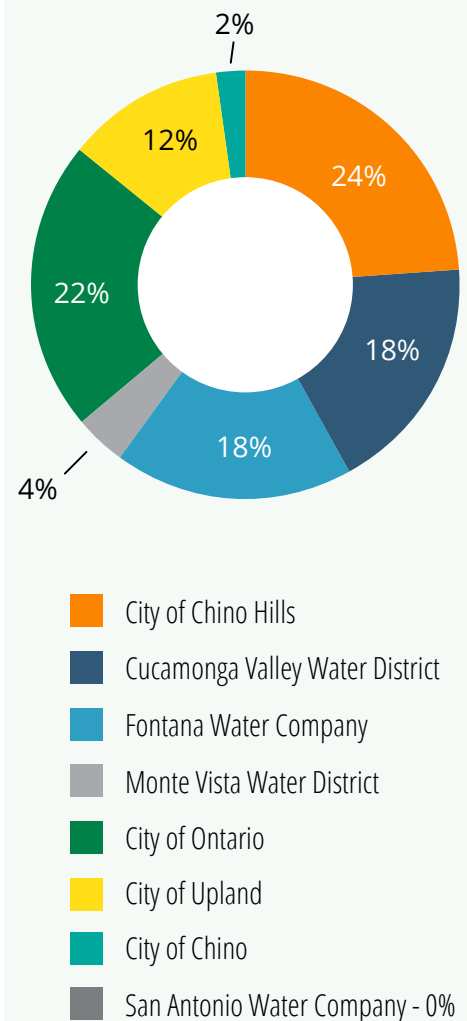
Interestingly Chino Hills, one of the smaller utilities, had the highest volume of annual water savings. This is due to their high customer participation in the Sprinkler Tune-Up Program. Ontario and Fontana achieved the largest lifetime savings due to installation of laminar flow restrictors at medical facilities and toilets in multi-family facilities.

Details on all program activity for each member agency can be found [here](#).

FY 2020 Member Agency Program Activity and Water Savings

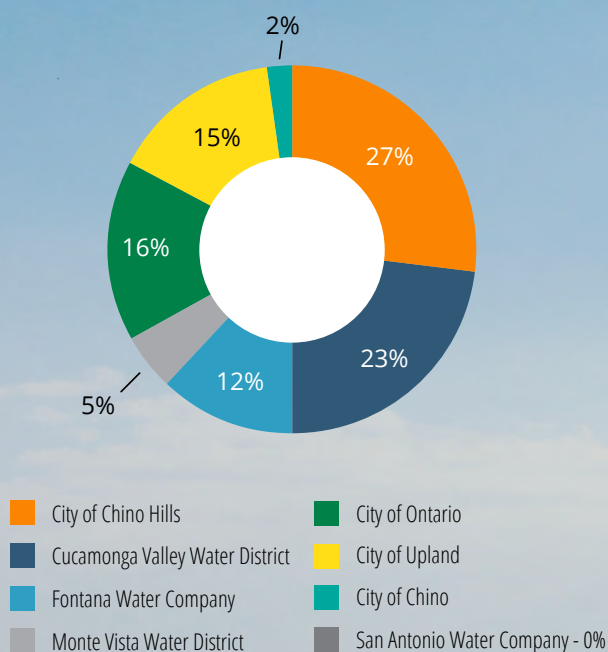
Member Agency	Number of Devices	Gallons Saved per Year	AF Saved per Year	Lifetime AF Saved
Chino, City of	175	2,190,587	7	67
Chino Hills, City of	788	28,741,926	88	483
Cucamonga Valley Water District	852	20,701,040	64	554
Fontana Water Company	2,211	21,413,895	66	679
Monte Vista Water District	172	5,260,859	16	122
Ontario, City of	2,613	26,510,242	81	790
Upland, City of	640	13,876,653	43	383
San Antonio Water Company	8	92,490	0	4

Percent Annual Water Savings by Member Agency



The chart below illustrates the program funding for the eight core water savings programs for each member agency.

IEUA Funding per Member Agency



Chino Hills and CVWD leveraged the most IEUA funding at \$277,262 and \$230,685 respectively. This is because Chino Hills actively promoted the Sprinkler Tune-up Program as well as the Leak Detection Program.

CVWD had the largest total funding at \$701,745 (\$421,033 from Metropolitan) because of their higher customer participation in the SoCal WaterSmart Program.

Details on program funding, activity and water savings for each member agency can be found [here](#).

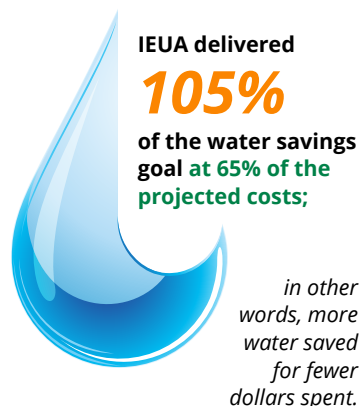
FY 2020 Funding Benefits per Member Agency

Member Agency	Outside Funding	IEUA Funding	MWD Funding	Total
Chino, City of	\$0	\$18,185	\$25,492	\$43,677
Chino Hills, City of	\$10,808	\$277,262	\$304,082	\$592,153
Cucamonga Valley Water District	\$50,048	\$230,665	\$421,033	\$701,745
Fontana Water Company	\$2,000	\$119,920	\$200,381	\$322,300
Monte Vista Water District	\$11,725	\$53,716	\$77,446	\$142,887
Ontario, City of	\$16,722	\$163,134	\$204,216	\$384,073
Upland, City of	\$21,341	\$148,600	\$249,774	\$419,715
San Antonio Water Company	\$0	\$590	\$570	\$1,160

FY 2020 Performance to WUE Business Plan Goals

Every five years, IEUA and its member agencies develop a Regional Water Use Efficiency Business Plan. The Business Plan documents regional water use efficiency targets, goals and methodologies to achieve water savings, meet current statutes, and comply with evolving State Standards.

To the right is a snapshot of the FY 2020 projected costs and savings from the 2015 WUE Business Plan compared against the actual costs and savings. As shown in the chart, IEUA delivered 105% of the water savings goal at 65% of the projected costs; in other words, more water saved for fewer dollars spent. It should be noted that it was projected that two water agencies would implement budget-based water rates. This did in fact, occur with both Chino and Chino Hills implementing budget-based rates. The actual water savings from the new rate structure will be evaluated in the future.



FY 2020 Performance Against 2015 WUE Business Plan

IEUA Projected Costs	\$1,094,335
"IEUA Actual Costs (Active Programs Only)"	\$790,773
"Difference in Spending Project vs Actual Costs"	(\$303,563)
"Projected Annual Water Savings without Budget Based Rates (AF)"	3,127
"Actual Annual Water Savings without Budget Based Rates (AF)"	3,292
Percent Achievement	105%

Looking Forward

The member agencies and IEUA have been effectively implementing water use efficiency strategies and programs over the last decade.

There are a number of challenges ahead. The most important will be to meet the imminent legislative mandates for tightened water usage standards. These looming regulations will require water agencies at the retail and wholesale level to work together in new and innovative ways and at a faster pace of adaptation and coordination.

As a result, IEUA will support the regional efforts that will help the member agencies achieve compliance.

Specifically, IEUA is committed to the following objectives for the upcoming year:

Generate a WUE Business Plan that provides the blueprint for the methodologies and strategies to be utilized to achieve water savings, meet current statutes, and comply with evolving State Standards.

Offer a range of water use efficiency programs, ideally providing integrated, multi-resource benefits including community and economic development.

Provide meaningful programs with high value for customers to motivate customers to participate.

Continue to focus on maximizing water savings and related programs within the constraints of the COVID-19 pandemic.

Support retailers in calculating compliance with California's new Framework legislation and meeting expected standards and requirements imposed by the Framework.

Continue to leverage outside funding and allocate IEUA WUE funding for local and regional programs to offset member agency financial burden.

Provide valuable marketing, data, and support resources to strengthen and augment programs and processes.



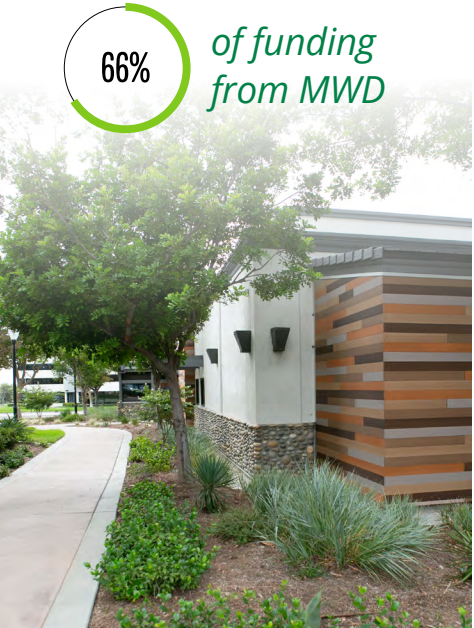
SoCal Water\$mart Turf Replacement

The Turf Replacement Program encourages customers to remove high water-consuming turf and replace it with low water-using, regionally appropriate plants and surfaces that allow for ground water infiltration and elimination of runoff. Qualifying applicants are eligible to receive \$3 per square foot of turf grass removed. Additional funding may be available to participants depending on member agency incentives.

Turf Replacement Program Savings FY 2020

	Annual Savings (AF)	Lifetime Savings (AF)
Residential	24	243
Commercial	42	421
Total	66	664

Long-term market transformation program



Why IEUA Implements the Turf Replacement Program

Hundreds of thousands of square feet of irrigated turf in the IEUA territory represent a significant opportunity for water savings.

Replacing turf with regionally appropriate plants also aids in transforming the irrigation and landscaping market.



Removing turf provides long-term savings that persist over 10 years.

Turf Replacement Program
FY 2020 Accomplishments

Increased activity over FY 2019 despite COVID-19 pandemic.

Turf Replacement Program Activity

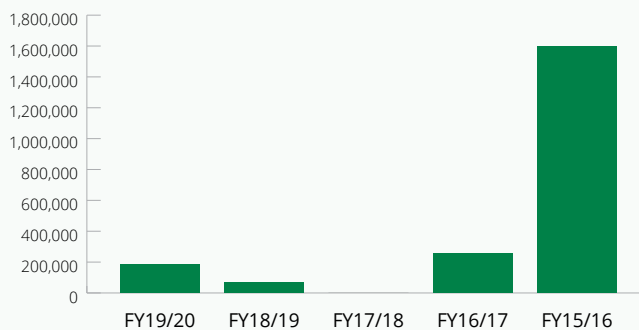
Turf removal reached peak popularity during FY 2016 when severe drought limited outdoor irrigation and rebates for turf removal were at their highest. As drought conditions ended, turf removal activity declined steeply, dropping 82% from the peak. In FY 2018, Metropolitan suspended the program due to lack of budget.

Turf Removal began to rebound in FY 2020 with a 61% increase in residential and 94% increase in commercial square footage replaced. However, the COVID-19 pandemic has slowed activity. Program activity over the past five years in the IEUA service area has mirrored that in Metropolitan's service area and the entire region. Below is a chart displaying residential and commercial activity in the Turf Replacement Program over the last five years.

	Residential SF Replaced	Commercial SF Replaced	Total SF Replaced
FY 2020	184,286	318,778	503,064
FY 2019	71,257	19,801	91,058
FY 2018	0	0	0
FY 2017	255,091	637,916	893,007
FY 2016	1,596,789	3,337,120	4,933,909



Annual Activity | Residential SQ FT



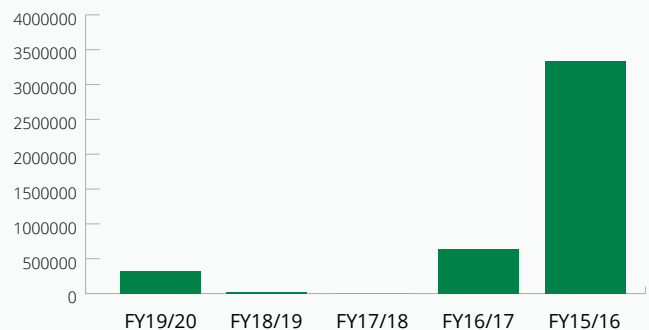
% Change
Year over Year

61%

% Change from 5
Years Ago

-766%

Annual Activity | Commercial SQ FT



% Change
Year over Year

94%

% Change from 5
Years Ago

-947%

Turf Replacement Program FY 2020 Water Savings

	Annual Savings (GPY)	Annual Savings (AF)	Lifetime Savings (AF)
Residential	7,924,298	24	243
Commercial	13,707,454	42	421
Total	21,631,752	66	664

Turf Replacement Program FY 2020 Cost and Cost Effectiveness

This program is cost effective at \$466 per acre-foot.

Outside Funding	IEUA Funding	MWD Funding	Total	IEUA Payback (Years)	IEUA Cost per Acre- foot
\$108,089	\$309,638	\$972,200	\$1,389,927	5.62	\$466

Turf Replacement Potential Program Enhancements

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



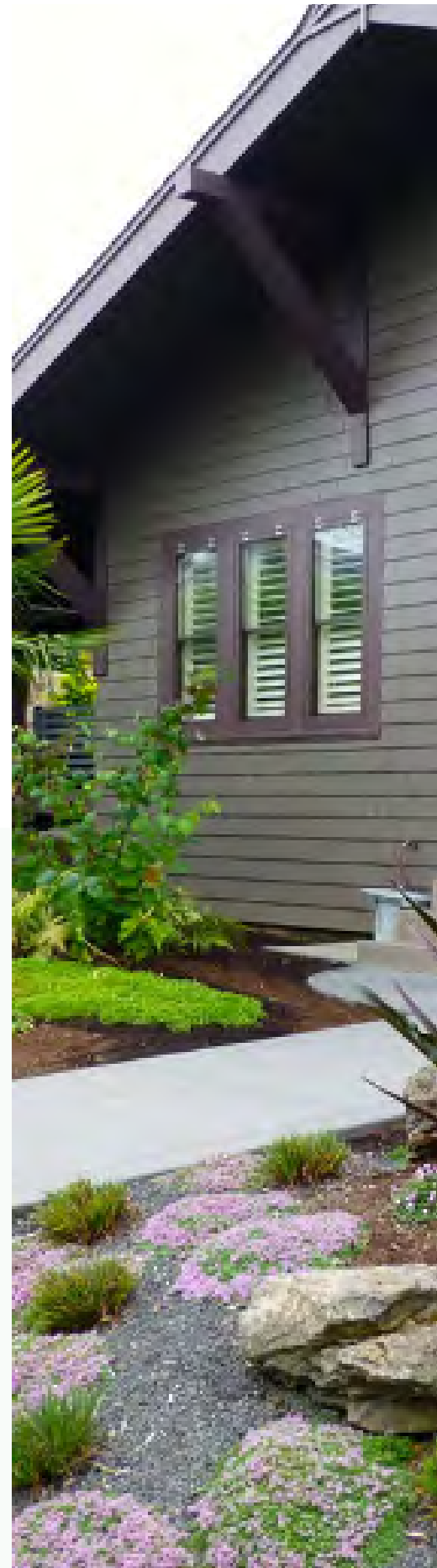
Targeting of customers likely to replace their turf, consistent and appealing outreach, and education to address customer reluctance for change.



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.



Building and promoting an easy-to-use and content-rich microsite that serves as a centralized hub bringing together the latest information, guidance, and examples on climate appropriate landscaping, including how-to videos, inspirational design ideas and homeowner stories, plant databases, and links to resources such as nurseries and qualified contractors.



SoCal Water\$mart Rebates

SoCal WaterSmart (SCWS) is Metropolitan's regional rebate program offering incentives for a menu of indoor and outdoor water saving measures for both residential and commercial customers.

The program is administered by Metropolitan's regional vendor, EGIA. Metropolitan pays for the base incentive as well the administration.

SCWS Program Savings FY 2020

	Annual Savings (AF)	Lifetime Savings (AF)
Residential	57	731
Commercial	93	1,043
Total	151	1,773

*Highest
water savings
program*

*Lowest per
acre-foot
costs*



IEUA adds supplemental funding for each device as shown in the chart below.

Residential Measures	Base Incentive	IEUA Added Incentive	Total Incentive
High Efficiency Clothes Washer	\$85	\$75	\$160
Premium High Efficiency Toilet	\$40	\$60	\$100
Landscape Measures			
High Efficiency Sprinkler Nozzles	\$2	\$3	\$5
Smart Controllers (Less than one irrigated acre)	\$80	\$80	\$160
Smart Controllers Per Station (One irrigated acre or larger)	\$35	\$10	\$45
Commercial Measures			
Plumbing Flow Control Valve	\$5	\$5	\$10
Laminar Flow Restrictor	\$10	\$10	\$20
Commercial Premium High Efficiency Toilet	\$40	\$60	\$100
Ultra-Low Water Urinal	\$200	\$200	\$400
Large Rotary Nozzles (Per Set)	\$13	\$5	\$18
In-Stream Flow Regulator	\$1	\$3	\$4
pH- Cooling Tower Controller	\$1,750	\$1,000	\$2,750
Cooling Tower Conductivity	\$625	\$375	\$1,000
Dry Vacuum Pump (Per 0.5 HP)	\$125	\$200	\$325
Connectionless Food Steamers (Per Compartment)	\$485	\$315	\$800
Ice-Making Machines	\$1,000	\$1,000	\$2,000

Why IEUA Implements the SoCal WaterSmart Program



SoCal WaterSmart Program FY 2020 Accomplishments

7,051 devices rebated.

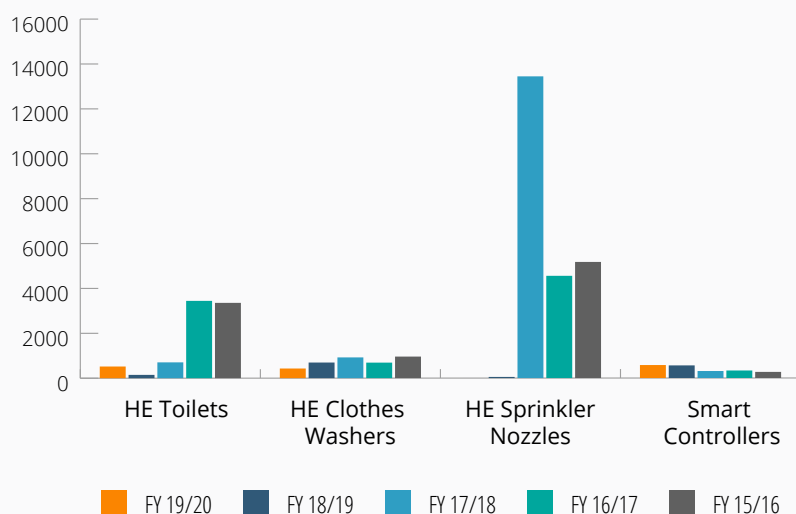
Over
1,500 customers
participated in the
program.

SoCal WaterSmart Program Activity

Residential Device Activity

Activity has gone from a high in FY 2018 of 15,381 devices to a low of 1,456 devices in FY 2019 and now up 52% in FY 2020 with 2,803 devices rebated. High efficiency sprinkler nozzles represent the highest volume of devices rebated. High efficiency toilets represent the second highest volume.

Residential Annual Activity by Device - 5 Year Comparison



Residential Annual Activity by Device

Device	FY 2020	FY 2019	FY 2018	FY 2017	FY 2016
HE Toilets	521	148	705	3,444	3,355
HE Clothes Washers	429	695	923	690	959
HE Sprinkler Nozzles	1,275	51	13,442	4,555	5,173
Smart Controllers	578	562	311	334	271
Total	2,803	1,456	15,381	9,023	9,758

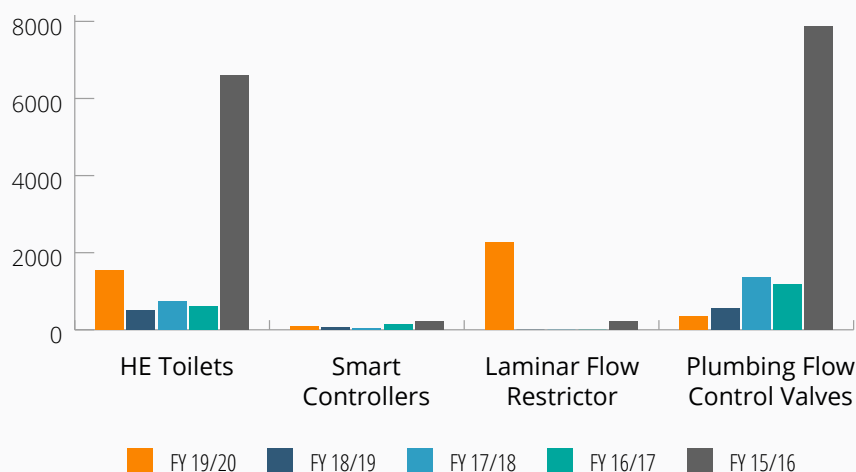
Commercial Device Activity

Activity has gone from a high of 34,426 devices in FY 2016 to a low of 1,120 devices in FY 2019, increasing 122% to 4,248 devices in FY 2020. Laminar flow restrictors represent the largest number of rebated devices. Toilets represent the second largest volume.

In FY 2020, there was zero activity for urinals, cooling tower controllers, high efficiency sprinkler nozzles, and air-cooled ice machines.



Commercial Annual Activity by Device - 5 Year Comparison



	% Change Year Over Year	% Change from 5 Years Ago
High Efficiency Toilets	132.88%	-328.72%
Smart Controllers	167.05%	-140.91%
HE Sprinkler Nozzles	0.00%	0.00%
Laminar Flow Restrictors	100.00%	90.71%
Plumbing Flow Control Valves	251.94%	-2087.22%
Commercial	93	1,043

Commercial Annual Activity by Device

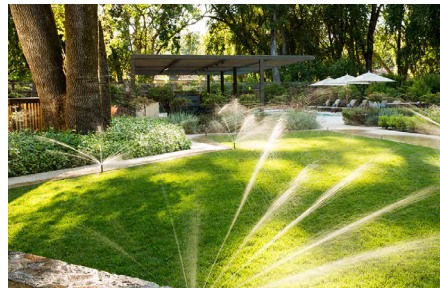
Device	FY 2020	FY 2019	FY 2018	FY 2017	FY 2016
High Efficiency Toilets	1,539	506	747	611	6,598
Smart Controllers	88	59	47	139	212
Laminar Flow Restrictor	2,261	0	0	0	210
Plumbing Flow Control Valves	360	547	1,363	1,191	7,874
Total	4,248	1,120	17,028	7,141	34,426

SoCal WaterSmart Program FY 2020 Water Savings

Residential Device Savings

The majority of annual residential device savings came from smart controllers at 24 acre-feet per year. However, high efficiency toilets represent the largest lifetime savings at 256 acre-feet due to their long life.

	Annual Savings (GPY)	Annual Savings (AF)	Lifetime Savings (AF)
High Efficiency Toilets	4,176,930	13	256
High Efficiency Clothes Washers	4,823,483	15	207
High Efficiency Sprinkler Nozzles	1,828,299	6	28
Smart Controllers	7,798,526	24	15
Rain Barrels	5,573	0	0
Total	26,557,109	57	731



Commercial Device Savings

The majority of annual savings for commercial devices came from laminar flow restrictors at 52 acre-feet, followed by high efficiency toilets at 38 acre-feet. Due to its 20-year product life, toilets provide the largest lifetime savings at 757 acre-feet or 71% of total savings. Although toilets provide the longest lifetime savings, the multi-family market is saturated with few higher flow toilets available in the market.

	Annual Savings (GPY)	Annual Savings (AF)	Lifetime Savings (AF)
High Efficiency Toilets	12,338,378	38	757
Smart Controllers	369,962	1	11
Laminar Flow Restrictor	16,947,778	52	260
Plumbing Flow Control	492,761	2	15
Total	30,148,879	93	1,043



SoCal WaterSmart Program FY 2020 Cost and Cost Effectiveness

Both the residential and commercial SoCal WaterSmart programs are the most cost-effective programs for IEUA. The commercial program comes in at \$89 per acre-foot and the residential is at \$155 per acre-foot with a combined cost of \$130 per acre-foot, well below IEUA's avoided costs.

Residential Device Cost and Cost Effectiveness

	Outside Funding	IEUA Funding	MWD Funding	Total	IEUA Payback (Years)	IEUA Cost per Acre-foot
High Efficiency Toilets	\$0	\$31,260	\$20,840	\$52,100	2.94	\$122
High Efficiency Clothes Washers	\$1,580	\$32,175	\$36,465	\$70,220	2.62	\$155
High Efficiency Sprinkler Nozzles	\$0	\$3,825	\$2,550	\$6,375	0.82	\$136
Smart Controllers	\$0	\$46,240	\$46,240	\$92,480	2.33	\$193
Rain Barrels	\$0	\$0	\$315	\$315	0.00	\$0
Total	\$1,580	\$113,500	\$106,410	\$221,490	2.39	\$155


Commercial Device Cost and Cost Effectiveness


	Outside Funding	IEUA Funding	MWD Funding	Total	IEUA Payback (Years)	IEUA Cost per Acre-foot
High Efficiency Toilets	\$0	\$92,340	\$61,560	\$153,900	2.94	\$122
Smart Controllers	\$0	\$1,320	\$3,080	\$4,400	1.40	\$116
Laminar Flow Restrictors	\$0	\$22,610	\$22,610	\$45,220	0.52	\$87
Plumbing Flow Controls	\$0	\$1,800	\$1,800	\$3,600	1.43	\$119
Total	\$0	\$24,410	\$24,410	\$48,820	0.55	\$89




SoCal WaterSmart Potential Program Enhancements

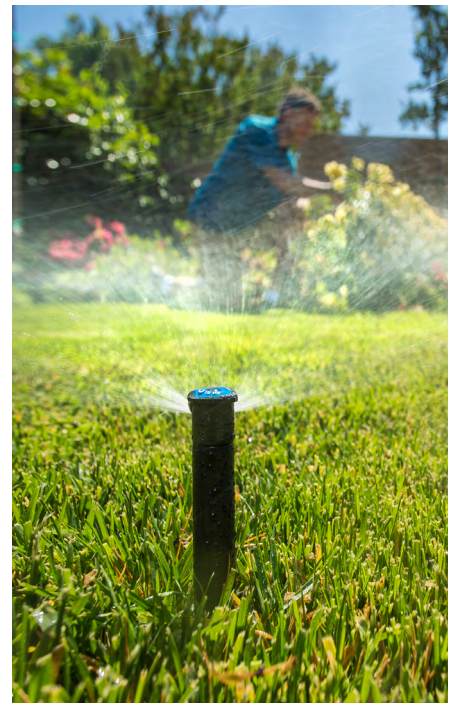
Ease of participation, knowledge about rebates and motivation to install new projects all pose barriers to program implementation. Recommendations for addressing these barriers include:

- 

Continue to add funding to priority measures, specifically irrigation measures including smart controllers and high efficiency sprinkler nozzles.
- 

Conduct more aggressive outreach and marketing, specifically targeting large landscape properties and top users. Utilize the communication avenue most appropriate for targeted populations.
- 

Address the barriers to participation in standard rebate programs. The two main barriers to participation are complex rebate paperwork and the requirement to pay for the purchase up front before receiving the rebate.



Sprinkler Tune-up Program

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

- General landscape and irrigation audit.
- 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.

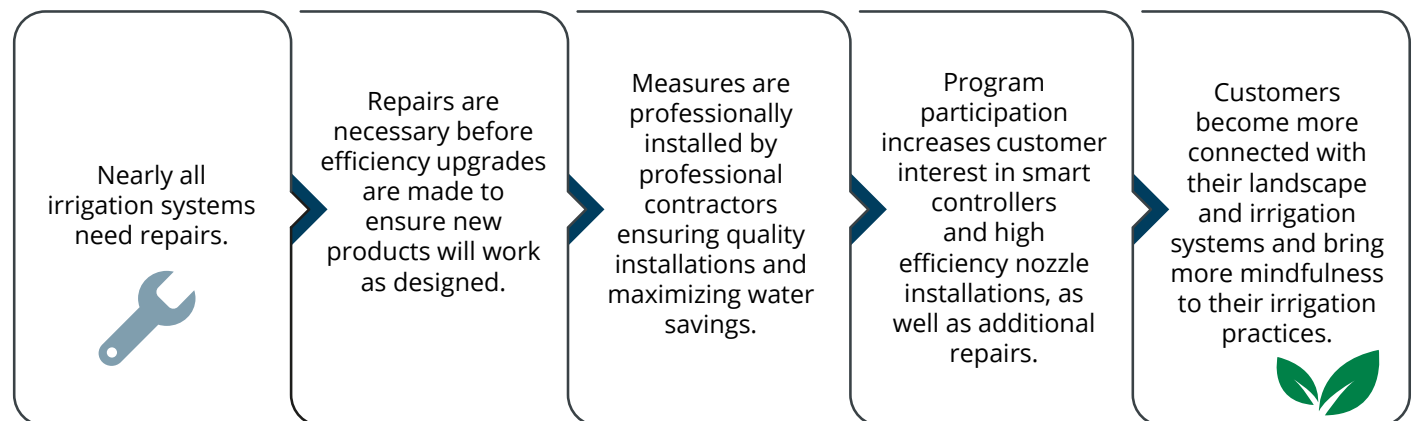
Begun as a pilot in FY 2019, the Sprinkler Tune-up Program was operated by Conserv Inc, IEUA's existing vendor for the smart controller installation programs. Customers responded to the program so well that funding was exhausted within a few weeks. In FY 2020, IEUA and its member agencies expanded the program to meet higher demand and following a competitive bidding process, Conserv was awarded the new contract.



Tune-up Program Savings FY 2020

Annual Savings (AF)	Lifetime Savings (AF)
104	209

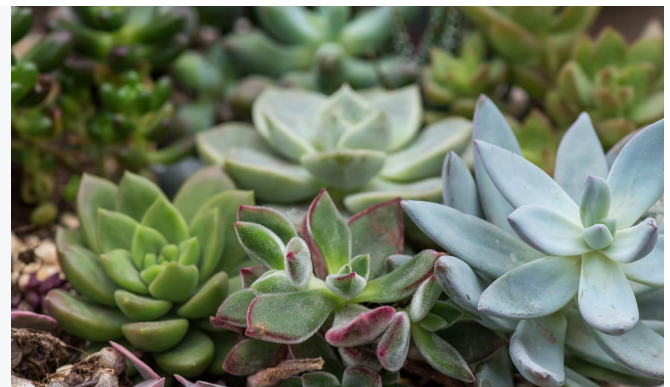
Why IEUA implements the Sprinkler Tune-up Program



Sprinkler Tune-up Program FY 2020 Accomplishments

Increase activity
275%
year-over-year

**Unprecedented
customer
demand**



Sprinkler Tune-up Program Activity

Extremely high demand for the Sprinkler Tune-up Program has resulted in an increase in activity year-over-year. In fact, participation in this program is limited only by budget. If the budget were to increase, participation would increase.

	Tune-up Services	Sprinkler Tune-up Program FY 2020 Water Savings		
		Annual Savings (GPY)	Annual Savings (AF)	Lifetime Savings (AF)
FY 2020	450			
FY 2019	163	34,023,960	104	209

Sprinkler Tune-up Program FY 2020 Cost and Cost Effectiveness

Outside Funding	IEUA Funding	MWD Funding	Total	IEUA Payback (Years)	IEUA Cost per Acre-foot
\$0.00	\$94,602.90	\$69,786	\$164,389	1.15	\$475

Sprinkler Tune-up Program Potential Enhancements

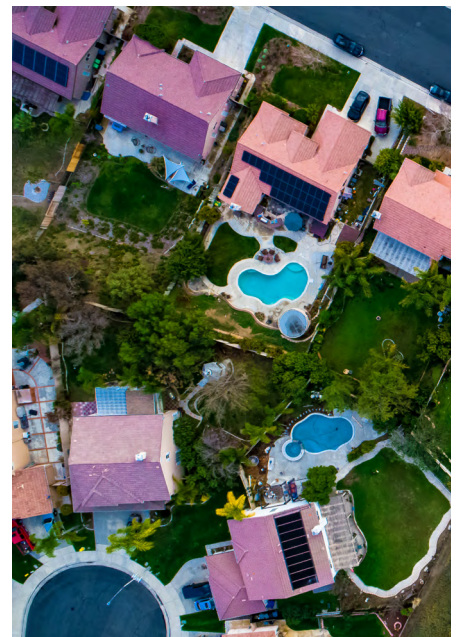
Landscape irrigation systems are often neglected by consumers until they have a problem. By encouraging preventative maintenance, the Sprinkler Tune-up Program fills a void with expert help and often empowers customers to pay more attention to their systems. Recommendations to improve this program are:



Consider targeting out-of-budget customers to improve cost effectiveness.



Continue to participate in the Metropolitan-sponsored study to analyze the savings per repair and duration of those savings and modify program services based upon findings.



Small Controller Upgrade Program

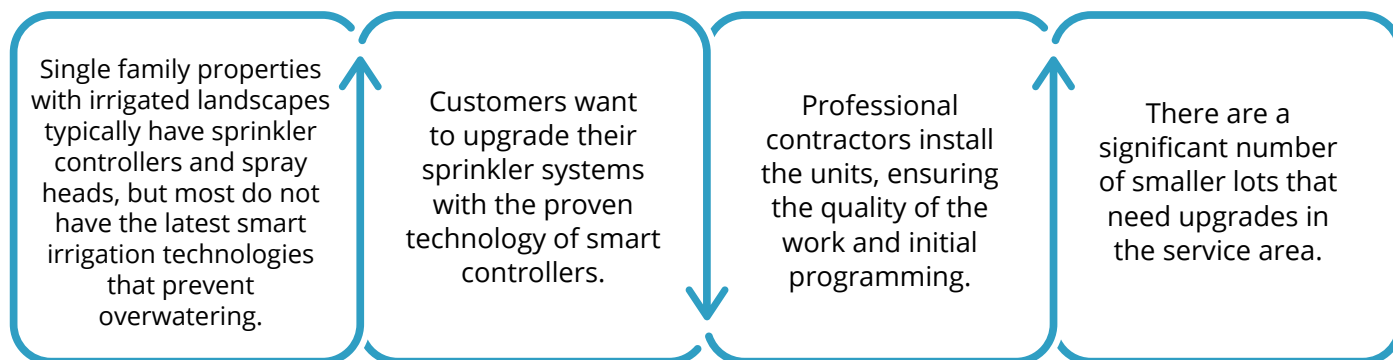
The Small Controller Upgrade Program offers customers the free installation of smart controllers that use real-time weather data to adjust the frequency of watering. To participate, customers must attend an educational workshop prior to the installation to ensure they can program and maintain the controller.

Small Controller Program Savings FY 2020

Annual Savings (AF)	Lifetime Savings (AF)
20	196



Why IEUA Implements the Small Controller Upgrade Program



Small Controller Upgrade Program FY 2020 Accomplishments

Almost
100% increase
in activity year-over-year

Synergy
with Tune-up Program
allowed for increasing
savings per site.

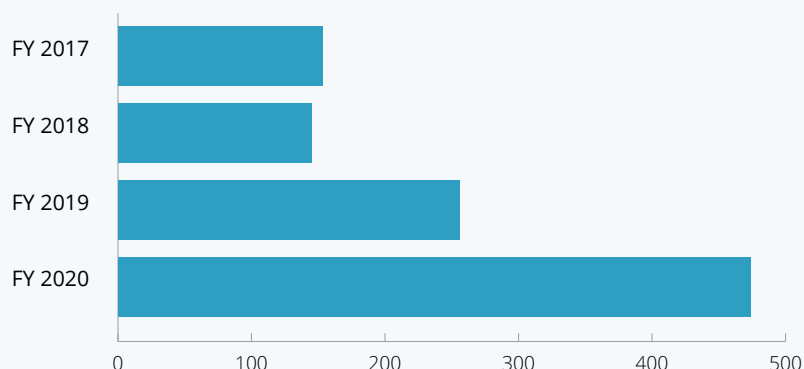
Shifted the educational workshop to an online video and transitioned the Program to contactless operation due to the COVID-19 pandemic.

Conserv
Program vendor Conserv
generated the video for free.

Small Controller Upgrade Program Activity

Despite the impacts of the COVID-19 health pandemic, activity in this program has continued to rise over the last year. This is due to how this program and Sprinkler Tune-up Program frequently work in concert to drive participation and water savings, as smart controllers were installed nearly 100% of the time an irrigation tune-up was done.

Smart Controller Installations 5 Year Comparison



Small Controller Upgrade Program FY 2020 Water Savings

Annual Savings (GPY)	Annual Savings (AF)	Lifetime Savings (AF)
6,395,331	20	196

Small Controller Upgrade Program FY 2020 Cost and Cost Effectiveness

The Small Controller Upgrade Program is one of IEUA's more expensive programs. The per unit water savings for controllers at smaller properties is much lower than larger landscapes, thus driving the cost effectiveness down.

Outside Funding	IEUA Funding	MWD Funding	Total	IEUA Payback (Years)	IEUA Cost per Acre-foot
\$0.00	\$186,171	\$96,096	\$282,267	11.43	\$949



Small Controller Upgrade Potential Program Enhancements

The Small Controller Upgrade Program draws customers who are motivated to save water through technology and upgrade their irrigation systems. However, the program for smaller properties is not as cost effective as other programs. Following are some recommendations for consideration:



Consider adding a co-payment to increase overall program cost effectiveness. However, cost-sharing may drive down participation, especially in times of economic uncertainty.



Pair the program with the Sprinkler Tune-up program for increased convenience to the customer and improved savings.



Target customers who exceed their water budgets for participation in this program. This is one way to increase cost effectiveness, rather than reaching out to the service area more broadly.

Large Landscape Retrofit Program

With its goal of reducing outdoor water use among top water users and properties with extensive landscapes, the Large Landscape Program provides the free installation of smart irrigation devices such as smart controllers and high efficiency sprinkler nozzles to eligible customers. The program targets customers who have a quarter of an acre or more of irrigated area or water usage of over 450,000 gallons per year per household.

Large Landscape Program Savings FY 2020

Annual Savings (AF)	Lifetime Savings (AF)
12	109

Why IEUA Implements the Large Landscape Retrofit Program

Properties with large irrigated areas typically have sprinkler controllers and spray heads, but most do not have the latest smart irrigation technologies.

Effective installations and programming are assured by professional installation by contractors.



Large landscape properties with very high outdoor water use present the best opportunities for greatest water savings due to their expansive acreage of irrigated lawns and gardens. In addition, upgrades to sites larger than a quarter of an acre are eligible for additional Metropolitan funding. This allows IEUA to leverage additional outside funding which increases overall program cost effectiveness.

The smart cloud-based irrigation controller appeals to customers.

Large Landscape Retrofit Program FY 2020 Accomplishments

Activity increased
100% year-over-year

Synergy
with Tune-up Program
allowed for increasing
savings per site.



Program closed and then re-opened successfully with contactless operations amid the COVID-19 pandemic.

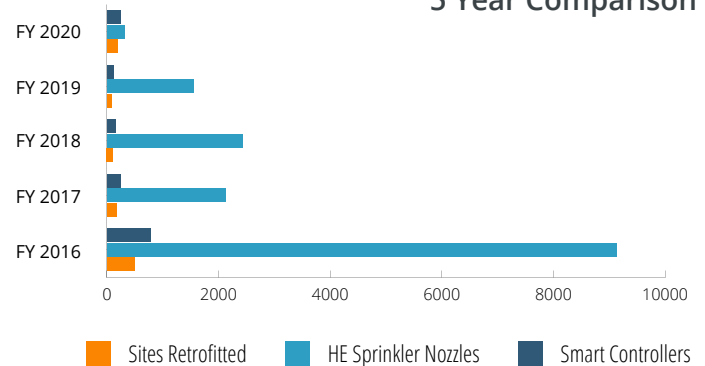
Large Landscape Retrofit Program Activity

Activity has decreased over the last five years and crept up a bit in FY 2020. This is probably due to the lack of extremely large properties in the IEUA service area as well as the general decline in all efficiency programs post drought.

The number of nozzles installed per site has gone down significantly over the last five years. The first iterations of the program allowed for replacement of nozzles with standard, non-high efficiency nozzles. This new requirement has likely lowered the number of nozzles replaced.



Large Landscape Retrofits
5 Year Comparison



	Smart Controllers	HE Sprinkler Nozzles	Sites Retrofitted
FY 2020	248	309	183
FY 2019	125	1,544	89
FY 2018	159	2,421	108
FY 2017	239	2,124	163
FY 2016	778	9,135	501

Large Landscape Retrofit Program FY 2020 Water Savings

Annual Savings (GPY)	Annual Savings (AF)	Lifetime Savings (AF)
3,789,174	12	109

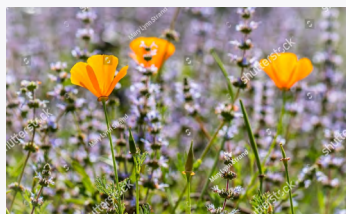
Large Landscape Retrofit Program FY 2020 Cost and Cost Effectiveness

The Large Landscape Program has a higher per acre-foot price than many other IEUA programs, however it is still below IEUA's avoided cost.

Outside Funding	IEUA Funding	MWD Funding	Total	IEUA Payback (Years)	IEUA Cost per Acre-foot
\$2,976	\$71,143	\$72,210	\$146,329	7.37	\$650

Large Landscape Retrofit Potential Program Enhancements

While the Large Landscape Program continues to be a cost effective and worthwhile program, it does present some opportunities for improvement. Some suggestions for future changes are:



Offset the program's higher cost with a customer co-pay. This will boost the overall cost effectiveness of the program while increasing customer commitment to water savings.



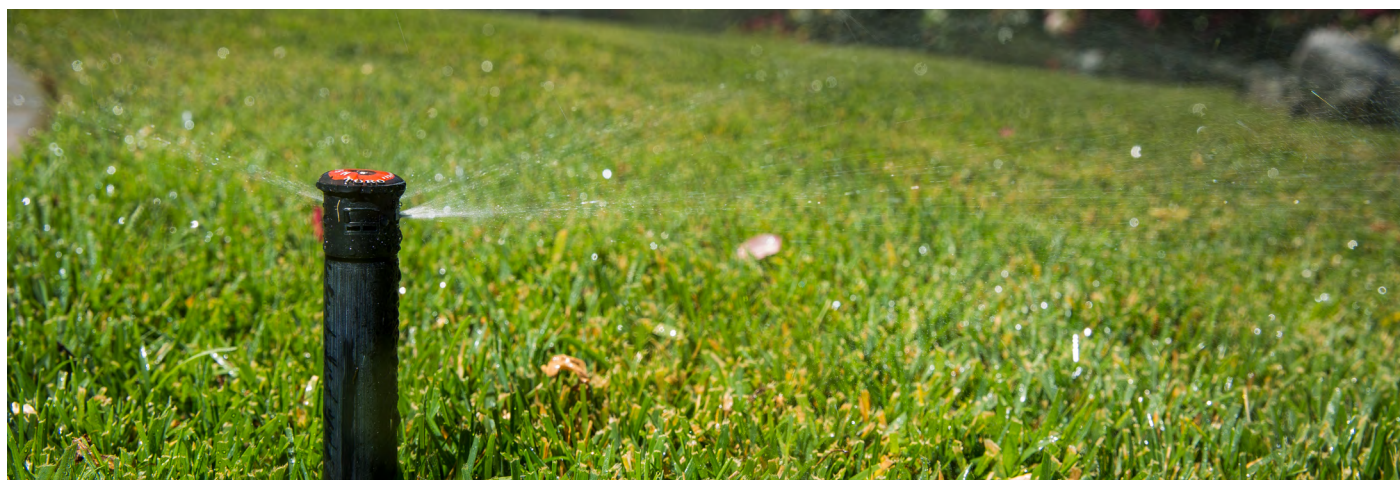
Offer virtual checkups to review programming of controllers and overall performance of the irrigation system to ensure the savings are sustained over time.



Merge the Large Landscape and Sprinkler Tune-up programs to reduce costs and improve savings. Customers can receive all the necessary repairs and upgrades during one visit instead of two. In addition, the IEUA vendor provides a discount when both visits are done together.



Market program as a Smart Timer Program to capitalize on customer interest in cloud-based controllers.



Pressure Regulating Valve Program

Launched as a pilot in June 2016, this program addresses problems caused by excessive water pressure on the customer side of the meter.

Pressure Regulating Valves (PRV) are installed at the meter, house, and/or at the point-of-connection for the irrigation system. These valves automatically reduce the high incoming water pressure from water mains to provide a lower, more functional pressure distribution. PRVs ensure that end-use plumbing fixtures and appliances operate at the intended flow rate and reduce the incidence of leaks.

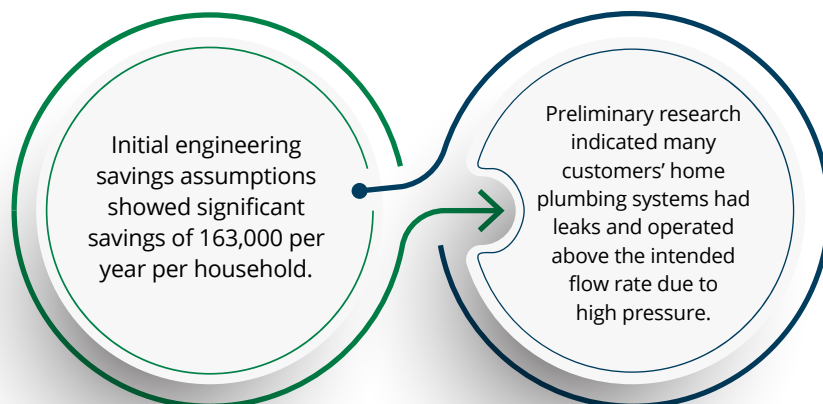


IEUA's program vendor, EcoTech Services, measures the property's water pressure and installs a PRV or adjusts the pressure if it exceeds a baseline of 80 pounds per square inch.

Pressure Regulation Program Savings FY 2020

Annual Savings (AF)	Lifetime Savings (AF)
4	45

Why IEUA Implements the Pressure Regulating Valve Program



NO-COST PROGRAM WATER PRESSURE REGULATION

- FREE SITE VISIT
- FREE WATER PRESSURE TESTING
- FREE REPLACEMENT OF FAILED PRVS
- SAFEGUARD YOUR HOME APPLIANCES
- PROTECT & PRESERVE YOUR EXISTING PIPES
- THIS IS NOT AN EMERGENCY REPLACEMENT PROGRAM.
- THIS IS A REGIONAL PROGRAM PROVIDED THROUGH CITY OF CHINO TO ITS RESIDENTS.



WHAT IS A PRESSURE REGULATING VALVE?

A Pressure Regulating Valve (PRV) is a plumbing device installed on your water line between the street and your home. It is used to moderate high water pressure for optimal home appliance, pipe, and fixture performance while significantly reducing the likelihood of leaks.

SIGN UP TODAY!

Contact the City of Chino
(909) 334-3472

Pressure Regulating Valve Program FY 2020 Accomplishments

In FY 2020, Metropolitan completed a study of the water savings following the installation of PRVs at properties within the IEUA service area. This analysis of 484 installations found that 48% of properties saw an annual increase in water use or no change after household pressure was reduced. Below are data from this study. Based on the study findings, Metropolitan reduced its payment per PRV to \$25 from an average of \$240.

	# of Applicable Records	Avg Pre-Install Water Use (Units/yr.)	Avg Post-Install Water Use (Units/yr.)	Savings (%)	Avg Pressure Reduction (psi)	Avg Water Savings per Avg Pressure Reduction (Units/psi)
Total	484	238	232	2.50%	45	0.14

The savings found were unexpectedly low; however, the member agencies have elected to continue with the program because of its highly valued customer service. The program is now provided on a case-by-case basis for customer experiencing issues with pressure.

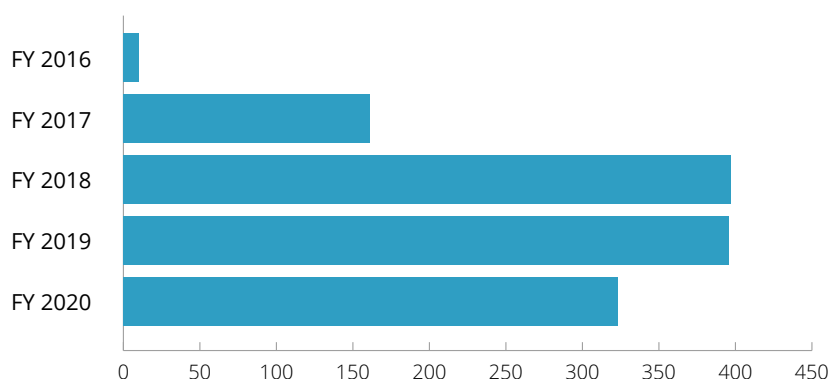


Pressure Regulating Valve Program Activity

Activity for the program remained stable through FY 2020. Due to limited outreach and the COVID-19 pandemic, activity will be significantly lower in FY 2021.

	Pressure Regulators installed
FY 2020	323
FY 2019	396
FY 2018	397
FY 2017	161
FY 2016	10

Pressure Regulating Valve Annual Activity 5 Year Comparison



Pressure Regulating Valve Program FY 2020 Water Savings

Annual Savings (GPY)	Annual Savings (AF)	Lifetime Savings (AF)
1,452,667	4	45



Pressure Regulating Valve Program FY 2020 Cost and Cost Effectiveness

At cost of \$2,242 per acre-foot and a payback of 27.01 years, the Pressure Regulation Program is not cost effective.

Outside Funding	IEUA Funding	MWD Funding	Total	IEUA Payback (Years)	IEUA Cost per Acre-foot
\$0	\$99,932	\$77,242	\$177,174	27.01	\$2,242

Pressure Regulating Valve Potential Program Enhancements

While a study has shown the Pressure Regulation Program to be less cost-effective than other WUE programs, it still serves a useful customer service purpose for member agencies. Recommendations for the program are as follows:

- Continue to employ the program with the acknowledgement that its key value is as a customer service and educational opportunity.
- Leverage customer complaints about high water pressure leading to high water bills as a means for promoting other conservation measures.
- Target customers in those service areas known to be prone to high water pressure.





Leak Detection Incentive Program

Smart leak detection devices can now monitor use, detect anomalies and alert homeowners of potential leaks. Some devices can even shut off water when abnormal use is detected, preventing or minimizing water damage in properties. A key benefit to water agencies is the water savings that accrues from these proactive programs. Recent studies of leak detection device programs by numerous water agencies show a reduction in water use of 9% to 18%. In those studies, approximately 70% of customers find leaks.

IEUA's program provides a point of purchase discount for the Flume Smart Water System. Customers install the Flume device themselves with set up taking less than 15 minutes. The technology works through a sensor that straps around the existing water meter and reads the magnetic signal coming from the meter's mechanical register. The system translates this signal to a flow rate in real-time and provides that data to customers via the Flume app on their smartphone.

Leak Detection Incentive Program Savings FY 2020	
Annual Savings (AF)	Lifetime Savings (AF)
8	83

The Flume app provides real time alerts notifying customers of excessively high volume or long duration water usage. In addition, it allows customers to understand and manage their water usage through user-friendly visuals. Customers can track daily water usage and manage their use against a budget. A new version separates indoor and outdoor water usage, which could be extremely valuable in complying with the State Framework Legislation.

To purchase a Flume device, customers login into their respective member agency's branded portal, order the device and it is sent directly to their home. Customers receive an instant discount and pay the amount due directly to Flume. Currently, IEUA pays \$160 and the customer pays \$40 plus shipping and tax. The total retail cost is \$200.

Why IEUA Implements the Leak Detection Incentive Program

The U.S. Environmental Protection Agency states that the average household's leaks can account for nearly 10,000 gallons of water wasted every year and that 10% of homes have leaks that waste 90 gallons or more per day.



Most leaks go undetected and customers are not aware they are wasting water for months until they receive an unexpectedly high water bill. Often, even the higher water bill goes unnoticed.

Leak Detection Incentive Program FY 2020 Accomplishments

Customer demand for this pilot program beginning in FY 2020 has been unprecedented and the program will be expanded in FY 2021. During the pilot program, Chino Hills expended their full allocation the same day their program went live. Currently three participating member agencies (Chino Hills, Monte Vista Water District, and Fontana Water company) offer devices on a first come first serve basis.

Leak Detection Incentive Program Activity

	Leak Detection Devices
FY 2020	111

Leak Detection Incentive Program FY 2020 Water Savings

Annual Savings (GPY)	Annual Savings (AF)	Lifetime Savings (AF)
2,713,118	8	83

Leak Detection Incentive Program FY 2020 Cost and Cost Effectiveness

The Leak Detection Program is highly cost effective at \$228 per acre-foot.

Outside Funding	IEUA Funding	MWD Funding	Total	IEUA Payback (Years)	IEUA Cost per Acre-foot
\$0	\$19,017	\$0	\$19,017	2.75	\$228

Leak Detection Incentive Potential Program Enhancements

With more attention being paid to leak detection by water agencies and customers, the Leak Detection Incentive Program offers a smart solution for member agencies seeking to achieve water savings and comply with new state regulations. Recommendations for this program are:

- Engage additional agencies to implement the program as a means to comply with new State Framework legislation.
- Educate agencies and meter departments on the safety and ease of installation/removal of Flume devices.
- Discuss with agencies how Flume can complement their current AMI systems providing additional customer benefits.
- Market utilizing vendor proven email format.
- Recommend the program for high bill complaints and target large users.





Landscape Evaluation and Audit Program

Administered by the Chino Basin Water Conservation District, the Landscape Evaluation and Audit Program offers customers a free evaluation of their landscape and irrigation system. The program is offered to residential, commercial, institutional, and industrial customers.

LEAP Program Savings FY 2020

	Annual Savings (AF)	Lifetime Savings (AF)
Residential	9	47
Commercial	33	166
Total	43	213

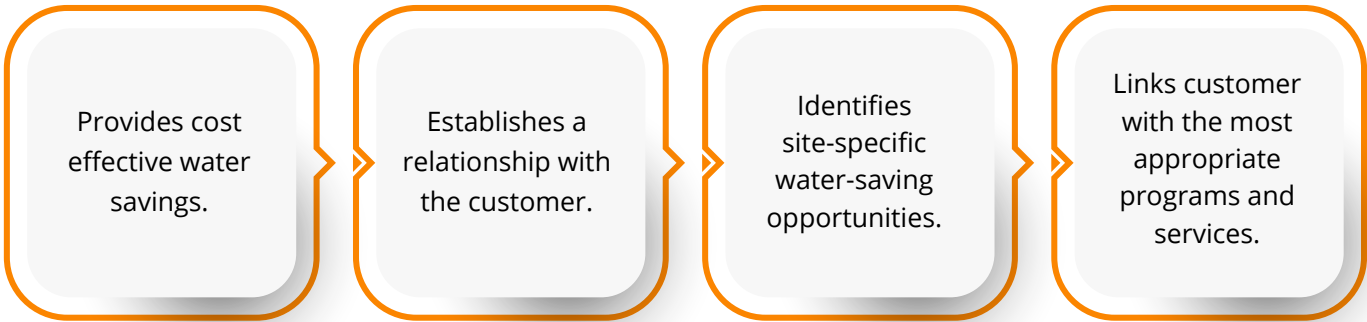
The audit includes:

- A complete evaluation of the customer’s irrigation system.
- Determination of the landscape’s water needs.
- Generation of a water budget based on the local evapotranspiration and irrigated landscape area.

Customers also receive:

- Water-saving tips.
- Recommendations on how to improve overall efficiency of their irrigation system.
- Information on rebate opportunities.

Why IEUA Implements LEAP



LEAP Accomplishments

- Despite a program hiatus from March to June due to health precautions related to the COVID-19 pandemic, the program saw increased activity in FY 2020.
- During the hiatus, CBWCD shifted LEAP’s focus to CII customers to increase program cost effectiveness.



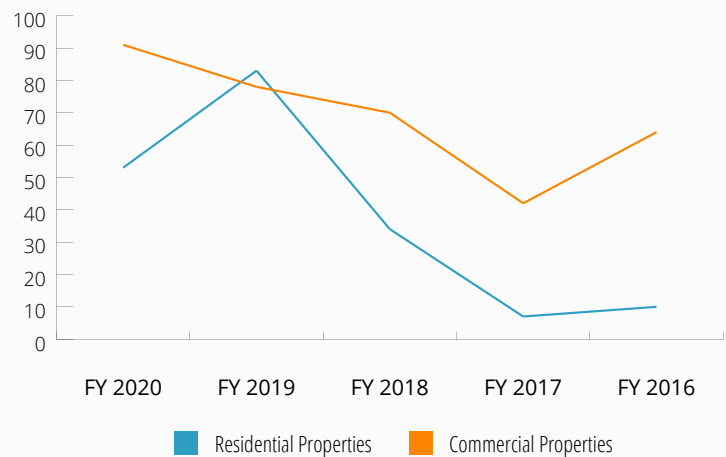
LEAP Activity

	Residential		Commercial	
	Properties	Acreage	Properties	Acreage
FY 2020	91	9.31	53	33.23

5 Year Comparison

	Residential Properties	Commercial Properties
FY 2020	91	53
FY 2019	78	83
FY 2018	70	34
FY 2017	42	7
FY 2016	64	10

LEAP Residential & Commercial Annual Activity 5 Year Comparison



LEAP FY 2020 Water Savings

	Annual Savings (GPY)	Annual Savings (AF)	Lifetime Savings (AF)
Residential	3,033,673	9.31	18.62
Commercial	10,828,029	33.23	66.46



LEAP FY 2020 Cost and Cost Effectiveness

CBWCD administers the LEAP program at a minimal cost to IEUA. This is because CBWCD receives independent funding through a property tax collected from customers in its service area or “sphere of influence.” Because CBWCD’s service area overlaps with IEUA’s, CBWCD provides LEAP without cost to program participants in the CBWCD service area. CBWCD only bills IEUA for customers who fall outside the CBWCD service area.



Outside Funding	IEUA Funding	MWD Funding	Total	IEUA Payback (Years)	IEUA Cost per Acre-foot
\$15,937	\$9,697	\$9,810	\$35,444	0.30	\$226

LEAP Potential Program Enhancements

LEAP provides valuable information and expertise to homeowners, property managers, homeowner associations, institutional managers and others about ways they can use water more efficiently. Recommendations for this program include:

- Conduct personalized follow-up to verify recommendations have been implemented and to assist customers in making upgrades and receiving incentives will help ensure water savings.
- Continue focus on CII and HOA customers to improve cost effectiveness and increased savings.
- Work with retail member agencies to identify target list of top users.
- Offer single-family evaluations to high bill and large landscape out-of-budget customers.
- Provide comprehensive concierge-type customer service for CII and HOA customers to improve project completion rates. Examples include helping customers present projects to HOA Boards, receive bids, apply for incentives, etc.
- Consider new DIY online irrigation resources for homeowners.



Landscape Design Assistance Program

Through a collaboration between CBWCD, IEUA and its member agencies, customers can receive landscape design services free of charge. This service has a market value of approximately \$500.

Participants are required to attend a two-hour “What You Need to Know Before Your Landscape Transformation” class before they become eligible to register for the Landscape Design Assistance Program. The class provides an overview of information people need to be successful with a turf replacement project, whether they are doing the work themselves or hiring a contractor.

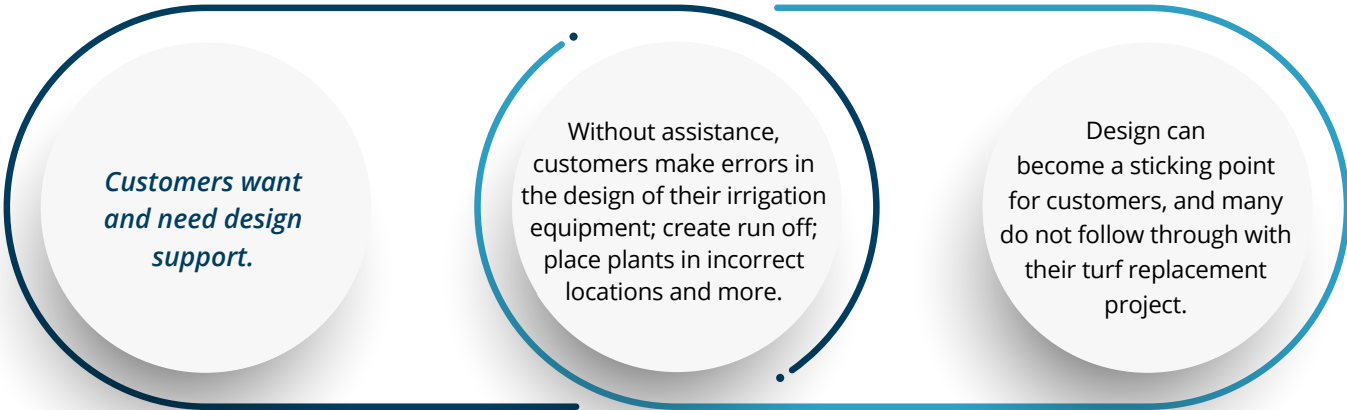
After attending the class, a CBWCD staff member provides one-on-one consultations with participants. Customers discuss goals for their landscape area and then work with staff to create a computer-generated design for the landscape project.

Following the consultation, CBWCD staff complete the design and create a custom plant list with the names and information about each plant selected for the designed landscape. Customers also receive a list of resources including sources for plants and other landscape materials.

Completed Designs	32
In Progress Projects	19
Completed Turf Replacement Projects	8
Percent Complete	25%



Why IEUA Implements the Landscape Design Assistance Program



Landscape Design Assistance Program Accomplishments



Turf replacement project completion rates increased to 25% in FY 2020. Two changes led to this success. First, commitment increased when customers were asked to provide a \$100 refundable deposit for participation instead of \$50. Second, CBWCD now requires attendance at one of its monthly Landscape Transformation Basics class. Not only did completion rates increase, but the program also drew 127 customers who had never participated in WUE programs before.

Landscape Design Assistance Program Activity and Costs

Like LEAP, CBWCD administers the Landscape Design Assistance Program at a minimal cost to IEUA. CBWCD receives independent funding for those customers in its service area. CBWCD only bills IEUA for customers who fall within the IEUA service area but outside the CBWCD service area.



Member Agency	Sites	Square Feet	Cost
City of Chino	4	7,535	\$0
City of Chino Hills	6	7,115	\$960
Cucamonga Valley Water District	4	7,818	\$960
Fontana Water Company	1	2,307	\$240
Monte Vista Water District	1	1,093	\$0
City of Ontario	7	9,141	\$0
San Antonio Water Company	0	0	\$0
City of Upland	3	11,829	\$0
Total	26	46,838	\$2,160

Landscape Design Assistance Potential Program Enhancements

This popular program takes time and expertise to implement. Suggestions for streamlining it include:



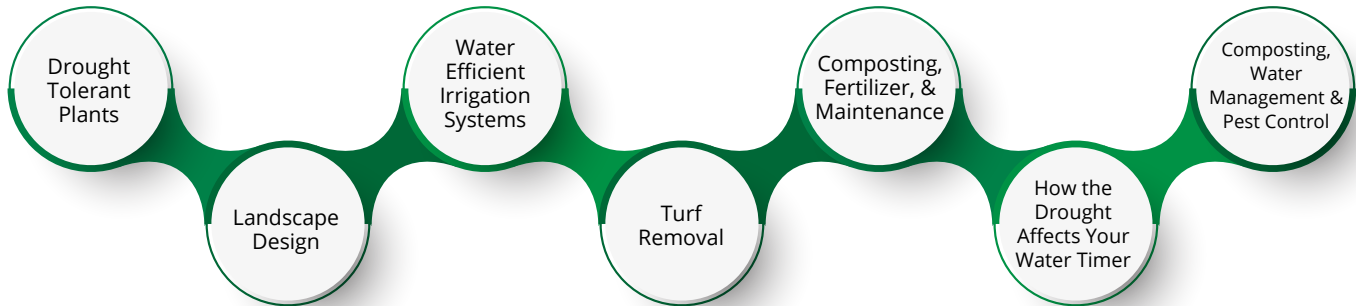
Create a template-based design system that allows participants to look at multiple design options online. Staff could then adapt the selected template to the customer's property dimensions and site conditions. Using a template base will dramatically increase efficiency in creating site-specific designs. This will allow expansion without hiring additional design staff.



Develop a do-it-yourself option based on online resources that anyone can access at no costs. This resource would reach more customers and also reduce the number who need a customized design.

Landscape Workshops

In this series of courses residential landscapers learn the latest ways to reduce their property's landscape water usage. The courses cover information on the basics of efficient irrigation systems, the benefits of properly watering and fertilizing landscaping, landscape design techniques and plant selections. Workshop topics include:



Landscape Workshop Results

Only four in-person workshops were held in FY 2020. This was due in part to the health precautions related to the COVID-19 pandemic, but also because of decline in customer demand.

Member Agency	Class Description	# of Classes
Cucamonga Valley Water District	Turf Removal and Plant Selection	2
City of Upland	Soil & Compost Native and Edible Gardens	2
	Total	4

Landscape Workshop Potential Enhancements

Free workshops bring value to customers and create opportunities to introduce people to a wide-range of water efficiencies they may not have considered before. Recommendations for improving these workshops include:



Work with CBWCD to create a full range of remote learning webinars.



Conduct personalized follow up with participants to understand customer needs and assist customers in making upgrades.



More actively promote workshops among customers throughout the service area.

Locally Funded Programs

In addition to regionally administered programs, IEUA provides funding for local programs, activities and support tools. These programs include:

IEUA's Member Agency Administered Program

Initially launched in FY 2018, the Member Agency Administered Program provides funding for locally implemented WUE projects that can demonstrate water savings. Member agencies submit proposals that include a project scope of work, estimated water savings, and cost. Proposed projects may not be duplicative of existing regional programs. Over fiscal year 2020, there were no proposed projects to report.



IEUA's Best Management Practice Support Grant

Each year IEUA allocates funding to financially support member agency specific WUE activities. Each member is eligible to receive a \$2,000 grant that supports a variety of activities and items such as special events, customer surveying, purchasing of outreach materials, conservation devices, and vehicle magnets. Over the last fiscal year, IEUA awarded four grants to member retail agencies representing a total of \$8,000. Below is a list of the four member agency grants.



Retail Agency	Funding Description	Amount
City of Chino	Reusable Water Bottles	\$2,000.00
City of Chino Hills	iPad Pro Tablet	\$2,000.00
Cucamonga Valley Water District	Earth Day Event	\$2,000.00
City of Ontario	WUE Bill Insert	\$2,000.00
Total		\$8,000.00

School and Education Programs

IEUA also provides regional education and outreach programs. Current regional education and outreach programs include the following:



National Theatre for Children

National Theatre for Children (NTC) delivers a behavior-driven, multiplatform, in-school water education curriculum for students and teachers in grade levels K-6. Through live theatre, a student curriculum and teacher guides, the custom-designed program teaches students about the uses of water, importance of water, ways to conserve, and ways water gets polluted. Over FY19/20, NTC visited 40 elementary schools throughout the IEUA service area and conducted 74 shows reaching 17,705 students.

Shows that Teach

Educational service provider Shows That Teach offers two fun, theatrical-style productions aimed at teaching K-6 students about water science, the value of water and the importance of conservation. The productions called "H2O, Where Did You Go?" and "Waterology" use skits, songs, visual aids, and audience participation to engage students and maximize retention. Over the last year, Shows That Teach conducted 23 performances, reaching 6,635 students at elementary schools throughout the service area and within the cities of Chino, Rancho Cucamonga, Fontana, and Ontario.

Below is the number of schools that participated in the NTC and Shows that Teach in FY 2020:

Program	# Schools	# Students	Funding
National Theatre for Children	40	17,705	\$49,920
Shows That Teach	12	6,635	\$11,450

Moving forward, the member agencies would like to focus efforts on only one school education program. They have chosen National Theatre for Children and eliminated Shows that Teach.

Garden in Every School® Program

Each year, the Garden in Every School® Program awards either a \$4,500 grant per school for up to four schools for the establishment of a new water-wise garden or a \$1,000 mini-grant to participating schools to support the sustainability of existing gardens. Due to the COVID-19 pandemic, the installation of schools gardens were placed on hold. Activity will resume in FY 2022.



Water Discovery Field Trip Program

Prior to the COVID-19 pandemic, IEUA provided free educational field trips to schools at the Chino Creek Wetlands and Educational Park to promote public understanding of the value of natural treatment wetlands, the creation of habitat for endangered/sensitive species and environmental stewardship. During FY 2020, 1,734 Girl Scouts, Boy Scouts, elementary and high school students took part in the Water Discovery Field Trip Program prior to March when field trips were put on hold due to the pandemic.

Health precautions following the onset of the pandemic required that IEUA shift all education programs from in-person to virtual. In April 2020, IEUA launched Owl's Virtual Adventures. The new virtual program features Wally's Water Conservation Camp, virtual tours, a series of At-Home Activities from the Water Discovery Field Trip Program, how-to videos on YouTube, and more.

The new virtual program, developed in-house by IEUA's External Affairs Department staff, demonstrates commitment to the goal of educating children about the importance of water and water conservation despite evolving conditions.



IEUA's Regional "Water is Life" Student Art/Poster Contest

Each year IEUA hosts its annual "Water is Life" Student Art/Poster Contest for grades K-12. The theme "Water is Life" has been used to help students express their creativity while focusing on the importance of water. In FY 2020, IEUA received over 600 entries. The top five winners from each category (K-5; 6-8; 9-12) were entered into Metropolitan's regional contest. Three winners were chosen from IEUA's service area: Cathy Zhang (1st grade-Allegiance STEAM Academy—Chino), Amy Esparza (10th grade-Chino Hills High School—Chino Hills), Armando Mora (11th grade-Chino Hills High School—Chino Hills). The winners were recognized at Metropolitan's awards ceremony in December 2020, and their artwork will be featured in the 2021 "Water is Life" calendar.



The Solar Cup™ Competition

Originally slated for May 2020 at Metropolitan's Lake Skinner reservoir in Temecula Valley, this year's Solar Cup™ competition had to transition to a virtual platform to meet health precautions related to the COVID-19 pandemic. The retooled Solar Cup™ 2.0 consisted of 12 virtual challenges designed to be completed as teams or individually.

Typically, the program lasts seven months and provides high school students with the opportunity to build, design and race solar-powered boats. The competition includes writing technical reports, creating social media campaigns and developing and implementing a strategy to build a boat powered by solar panels, traditionally concluding with a boat racing competition at Lake Skinner.

Solar Cup™ 2.0 challenges focused on virtual design and development, report writing, webinars, video scripting and development, and more. Teams also produced videos with uplifting messages for the public service message portion of the challenge.

The Chino Hills High School team co-sponsored by IEUA and the city of Chino Hills finished first with an overall score of 1332 out of 1300 by completing extra credit questions on some challenges.

IEUA co-sponsored three other teams for the original program prior to the program shift to a digital platform: Chino High School, co-sponsored with the city of Chino; Los Osos High School located in Rancho Cucamonga, co-sponsored with the Cucamonga Valley Water District; and Upland High School, co-sponsored with the city of Upland.



Community Outreach

IEUA participated in the following community outreach activities in coordination with member agencies:

- San Bernardino County Water Conference
- Landscape and Water Conservation Festival
- Chino Hills State of the Community Fair
- Smart Irrigation Month Hose Nozzle Giveaway



San Bernardino County Water Conference

The annual San Bernardino County Water Conference was held on August 9, 2019, at the Ontario DoubleTree Hotel, where government officials, water experts, business leaders and the community discussed opportunities to overcome California's water challenges. The event was hosted by the Southern California Building Industry Association.

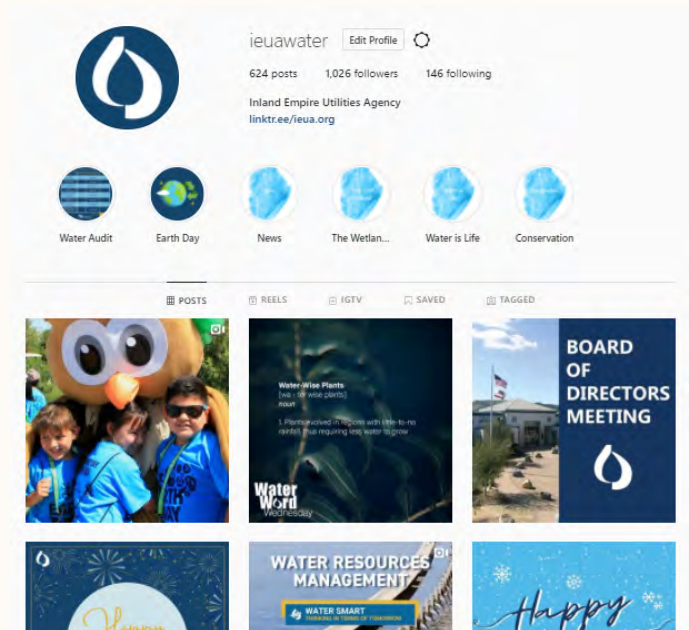
Landscape and Water Conservation Festival

The annual Landscape and Water Conservation Festival hosted by Chino Basin Water Conservation District, in partnership with IEUA and local water providers, was held on October 12, 2019 at the Waterwise Community Center in Montclair. The festival educates the public through free, hands-on activities, shows and workshops about the importance of using water wisely. They learn about where our water comes from and how it is used in everything including growing and cooking food, and the making of clothes and automobiles.



IEUA's Social Media Outreach

Communicating with our customers and the community means meeting them where they are. IEUA continues to offer updates via Facebook, YouTube, Twitter, Instagram, LinkedIn, and two educational blogs. IEUA hosts two Instagram pages, one for IEUA @IEUAWater and one for the Chino Creek Wetlands and Educational Park @chinocreekwetlands. The social media platforms allow IEUA to provide up-to-the-minute information on events, news, education programs, drought updates, water-wise tips, park updates and wildlife facts. Blog content is promoted via IEUA's social media channels and website.



Water Education - Water Awareness Committee

IEUA is a member of the Water Education Water Awareness Committee (WEWAC), which promotes the importance of water conservation in Southern California through coordination and participation in community outreach projects and providing grant funded opportunities for local educators. Projects include hosting booths at local resource and educational fairs, conducting water education workshops at local primary and secondary schools, offering grant and scholarship opportunities for educators and students, sponsoring an annual water conservation video contest, and sponsoring a broadcast media and digital art contest.

IEUA Water Softener Rebate Program

IEUA Water Softener Rebate Program aims to remove residential self-regenerating water softeners within the service area. Customers are incentivized through a rebate. During FY 2020, 17 water softeners have been removed and customers have received \$7,325.10 in incentives. Over the course of the program, 901 water softeners have been removed and \$523,249.95 in incentives has been paid to program participants. The removal of these devices will save approximately 17.12 acre-feet of water per year in addition to the removal of more than 208.13 tons of salt.



6075 Kimball Ave, Chino CA 91708
909-993-1600 | www.ieua.org

