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OC SMART IRRIGATION TIMER REBATE PROGRAM

Program Evaluation

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The Family of Orange
County Water Agencies

Table of Contents

Acknowledgements.....	3
Executive Summary.....	4
Introduction	5
Evaluation Need	5
Program Evaluation Objectives.....	5
Process Evaluation	7
OC Smart Irrigation Timer Rebate Summary	7
Program Effectiveness	8
Influence on Market Transformation.....	10
Follow-up Questionnaire Results	12
Impact Evaluation	16
Water Savings Results	18
Effect of Irrigation Timers on Average Water Use.....	18
Effect of Irrigation Timers on Water Use through the Year.....	19
Results of Pairwise Analysis	20
Comparison to Other Evaluations.....	21
Evaluation Conclusion.....	24
Participation Trends.....	24
Satisfaction and Water Savings Perception	24
Impact on Water Use	24
Next Steps	24

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- City of La Habra
- City of La Palma
- Laguna Beach County Water District
- Mesa Water District
- Moulton Niguel Water District
- City of Newport Beach
- City of Orange
- City of San Clemente
- City of San Juan Capistrano
- City of Santa Ana
- City of Seal Beach
- Serrano Water District
- Santa Margarita Water District
- South Coast Water District
- Trabuco Canyon Water District
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- City of Westminster
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Executive Summary

The OC Smart Irrigation Timer Rebate Program (Program) was developed by the Municipal Water District of Orange County (MWDOC) to offer residential and commercial sites rebate incentives to encourage irrigation controller device retrofits. Weather-based irrigation controllers (commonly referred to as Smart Timers) were targeted for this program because of their significant potential for water savings. MWDOC's Program goals included the installation of 475 residential timers and 800 commercial timers, with a minimum post-installation inspections at 46 residential and 76 commercial sites. The overall water savings Program goal was 560 acre feet of water per year. The Program is funded by a Water Smart Grant provided by the United States Department of Interior Bureau of Reclamation (USBR), along with additional funding from the Metropolitan Water District of Southern California, and the Family of Orange County Water Agencies. The Program commenced on September 9, 2011 and ran through September 30, 2014.

A key requirement of the USBR grant funding is that a program evaluation be performed to determine the successes and challenges faced by the Program (Process Evaluation) and the actual water savings achieved by the Program (Impact Evaluation). As part of this Program Evaluation, a random sampling of residential and commercial sites was taken and analysis was performed to determine the following: (1) Program participation trends; (2) Program satisfaction and water savings perception; and (3) impact on water use.

A goal of the Process Evaluation was to survey 20% of the participants to test the overall effectiveness of the OC Smart Irrigation Timer Rebate Program. Interviews were also conducted with the Program manager from MWDOC. Of the 813 participating sites, with valid emails, contacted to participate in the follow-up survey, 213 participants offered responses to the questionnaire, resulting in a 26% response rate for the Program Evaluation.

From Program launch, in September 9, 2011, through September 30, 2014, a total of 2,072 residential timers and 1,803 commercial timers were installed. These implementation rates have far exceeded the Program goals by 436% for residential timers and 225% for commercial timers, additionally resulting in 160% of the water savings goal. Over the same time period, 400 residential and 100 commercial post-installation inspections were performed, exceeding the goals by 540% and 217% respectively.

The purpose of the Impact Evaluation was to estimate the actual water savings; meaning realized water savings that could be discerned at the meter. A pre/post implementation treatment designation with weather normalization and pairwise analysis was introduced into the analytic framework to keep irrigation need based on site (lot) size consistent. Through the Impact Evaluation, it is estimated that the water savings is 59 gallons per day per residential site and 320 gallons per day per commercial site or 783 acre feet per year of overall Program savings, exceeding the goal by 140%.

Introduction

The Municipal Water District of Orange County (MWDOC) commenced the OC Smart Irrigation Timer Rebate Program (Program) on September 9, 2011. The Program is offered to both residential and commercial sites located within Orange County, California, which includes MWDOC's 28 retail agencies as well as the cities of Anaheim, Fullerton, and Santa Ana. The purpose of the Program is to provide enhanced rebates for the upgrade of conventional time-based irrigation controllers to weather-based irrigation controllers (commonly referred to as Smart Timers). The Program is funded by a WaterSMART Grant provided by the United States Department of Interior Bureau of Reclamation (USBR), along with additional funding from the Metropolitan Water District of Southern California (MWD), and the Family of Orange County Water Agencies. As part of the OC Smart Irrigation Timer Rebate Program, the funding agencies require that a Program Evaluation be performed.

The purpose of this Program Evaluation was to perform (1) a Process Evaluation of the Program format and (2) an Impact Evaluation of water savings achieved by participants in the OC Smart Irrigation Timer Rebate Program. In addition to fulfilling a grant agreement requirement, MWDOC is looking to determine what successes and challenges came with implementation of the Program. As part of this Program Evaluation, a random sampling of residential and commercial sites was taken and analysis was performed to determine the following: (1) Program participation trends; (2) Program satisfaction and water savings perception; and (3) impact on water use.

The Process Evaluation included surveying participating customers within MWDOC's service territory for information about their satisfaction and interaction with both the Program and the devices installed. These customers were chosen at random in order to ensure representativeness. Sites receiving the questionnaire were also delineated into sub-categories groups: (1) those that did/did not receive a post-installation inspection; and (2) those that did/did not have the device professionally installed.

The Impact Evaluation was conducted concurrently with the Process Evaluation. For the water savings impact analysis, billing data was requested from participating retail water agencies for a random sample of participating customers. The Impact Evaluation analyzed the water use trends of the customers based on pre/post installation of the device (intervention point). Additionally, the water use was weather normalized to allow for removal of temporal and climatic variability. Finally, these results were compared to previous evaluations MWDOC has performed on past smart timer rebate programs.

Evaluation Need

A key requirement for receiving the grant funding from USBR is the performance of a Program Evaluation to determine either the successes or challenges faced by the Program and the actual water savings achieved. Although the Program is still ongoing, the Program Evaluation began on July 2014. The Program is set to conclude in September 30, 2014. The results from this Program Evaluation will help determine the effectiveness of the smart timers as a water efficient device and will provide information on how similar water efficiency rebate programs should be focused in the future.

Program Evaluation Objectives

The goal of the Program Evaluation is to determine:

Process Evaluation

1. Program participation trends.
2. Program satisfaction and water savings perception on behalf of the participant.
3. Evaluate water savings from installed smart timers in both the residential and commercial sector.

Process Evaluation

OC Smart Irrigation Timer Rebate Summary

The OC Smart Irrigation Timer Rebate Program was developed to assist residential and commercial sites with reducing their landscape water use. With this Program, MWDOC set out to achieve a Program goal for the installation of 475 residential timers and 800 commercial timers, with a minimum post-installation inspections of 46 residential and 76 commercial sites. The overall water savings Program goal was 560 acre feet per year with an anticipated implementation life of 10 years.

MWDOC was awarded a USBR 2011 WaterSMART Water and Energy Efficiency Grant to implement the OC Smart Irrigation Timer Rebate Program, a continuation of MWDOC's SmartTimer Rebate Program that was established in 2004. Because this was a continuation of an ongoing program, MWDOC was able to immediately commence the OC Smart Irrigation Timer Rebate Program upon the execution of the agreement on September 9, 2011.

Data collection and reporting tools were developed to MWDOC's, MWD's, and USBR's specifications, and rebate funding levels were established. By using the additional USBR grant funds, MWD rebates are enhanced beyond the standard offerings. Additionally, a retail water agency must contribute in order to have access to the MWDOC portion of the rebate. Table 1 provides a detailed description of the rebate levels for the smart timer devices as well as the funding source.

MWDOC, MWD, and the retail agencies were all proactive in marketing the Program. Components of marketing for the OC Smart Irrigation Timer Rebate Program involved local retail agencies including bill stuffers informing them of the availability of the enhanced rebates through this Program. Additionally, the program was advertised on the MWDOC, MWD, and local retail agency websites and concurrently MWDOC used a variety of social media platforms as a promotion tactic. MWDOC also promoted the Program at public outreach and industry specific events and presentation. The incentive levels are limited to the cost of the device plus up to \$150 or installation costs. The maximum potential residential rebate level decreased over time due to a decrease in the average cost of these devices, an example of market transformation.

Table 1. Funding breakdown by fiscal year for the OC Smart Irrigation Timer Rebate Program

Device	Fiscal Year	MWD SoCal WaterSmart Rebate	MWDOC SmartTimer Rebate ^z	Retail Agency Mandatory Contribution	Retail Agency Supplementary Contribution ^y	Install Costs ^x	Potential Maximum Rebate ^w
Residential Weather-Based Irrigation Controller	11-12	\$80	\$270	\$75	\$0	\$150(emb)	\$425
	12-13	\$80	\$270	\$75	\$0	\$150 (emb)	\$425
	13-14	\$80	\$225	\$75	\$0	\$150 (emb)	\$380
		\$80	\$225	\$75	\$0	\$120 (add)	\$500
	14-15	\$80	\$225	\$75	\$0	\$150 (emb)	\$380
Commercial Weather-Based Irrigation Controller	11-12	\$25/Sta	\$0	\$0	\$5-10	\$0	Up to device cost
	12-13	\$25/Sta	\$0	\$0	\$5-10	\$0	Up to device cost
	13-14	\$25/Sta	\$5	\$0	\$0	\$0	Up to device cost
	14-15	\$35/Sta	\$0	\$0	\$0	\$0	Up to device cost

^z Provided through USBR Agreement No. R11AP35297

^y Not all agencies contributed to the enhanced rebate level.

^x emb = embedded within total rebate; add = additional installation rebate

^wresidential rebates are paid up to the device cost.

Program Effectiveness

Over the term of the OC Smart Irrigation Timer Rebate Program (September 9, 2011 thru September 30, 2014), a total of 2,072 residential timers and 1,803 commercial timers were installed (Table 2). Figure 1 illustrates the geographic distribution of devices installed across Orange County. These implementation rates have far exceeded the Program goals by 436% for residential timers and 225% for commercial timers. Over the same time period, 400 residential and 100 commercial post-installation inspections were performed, exceeding the goals by 540% and 217% respectively.

Table 2. Device installation quantities by semi-annual report.

USBR Report No.	Installations		Inspections	
	Residential	Commercial	Residential	Commercial
Report 1	319	150	8	100
Report 2	896	337	91	0
Report 3	483	194	86	0
Report 4	185	231	112	0
Report 5	189	264	103	0
Report 6	0	627	0	0
Total	2,072	1,803	400	100

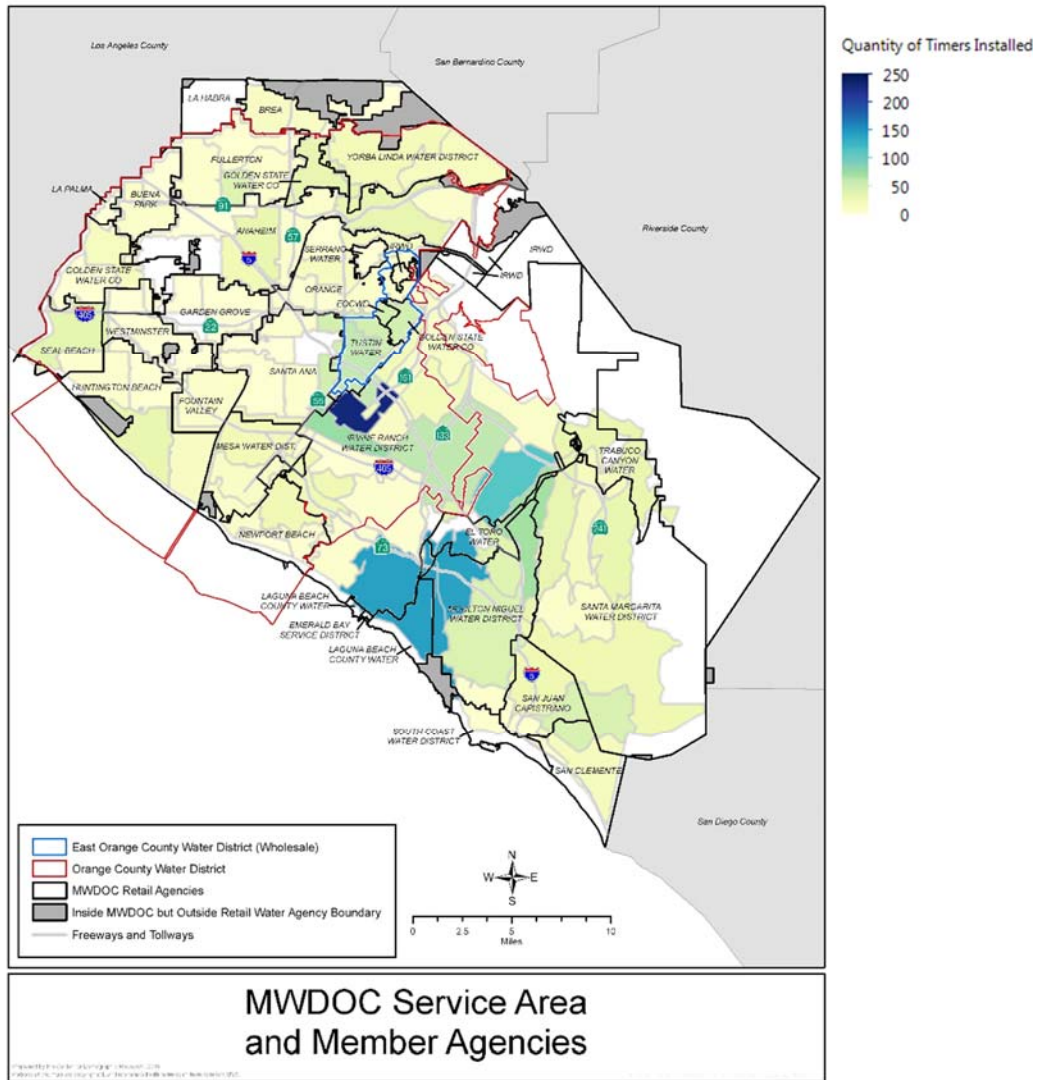


Figure 1. Geographic distribution of devices installed across Orange County.

Influence on Market Transformation

The cost of these devices have begun to decline as they have become more well-known, readily available, and production levels have increased. Figure 2 depicts the steady decrease of the residential irrigation timer over the duration of the Program. This trend highlights evidence of market transformation. Another indication of market transformation is illustrated in Figures 3 and 4. While landscape and irrigation industry professionals continue to be the primary source for the end-user to purchase the device, representing 63%, direct purchase of the device by the end-user increased throughout the Program duration. The availability of these devices at big-box retailers now attributes to 22% of the direct purchases, with the trend increase over time illustrated in Figure 3. The distribution of devices installed by manufacturer and sector is shown in Figure 5.

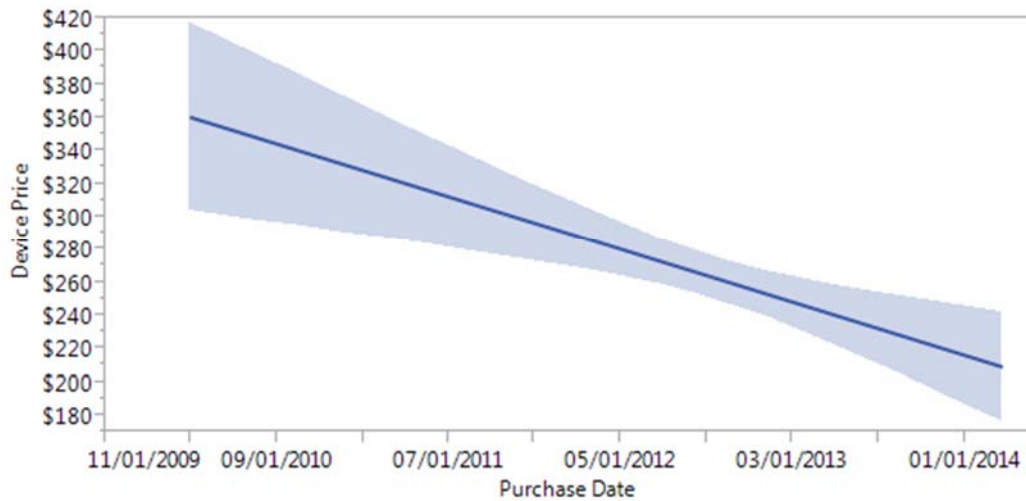


Figure 2. Device cost over time including shading representing 95% confidence of fit.

Process Evaluation

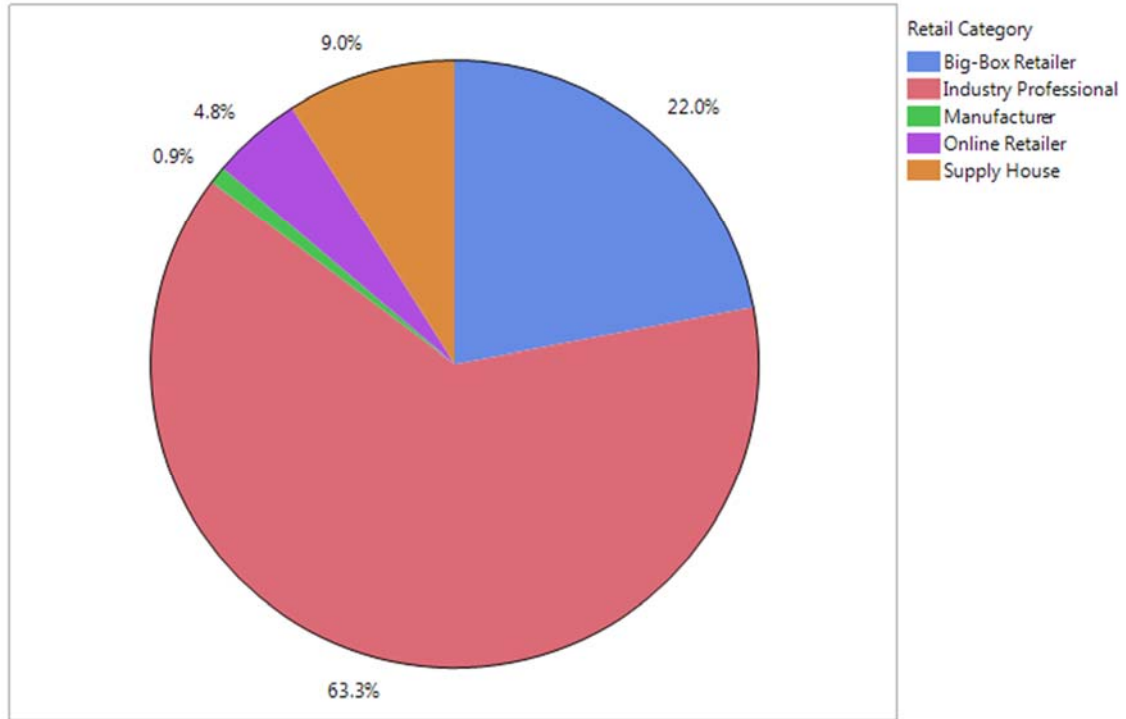


Figure 3. Device purchase location retail category.

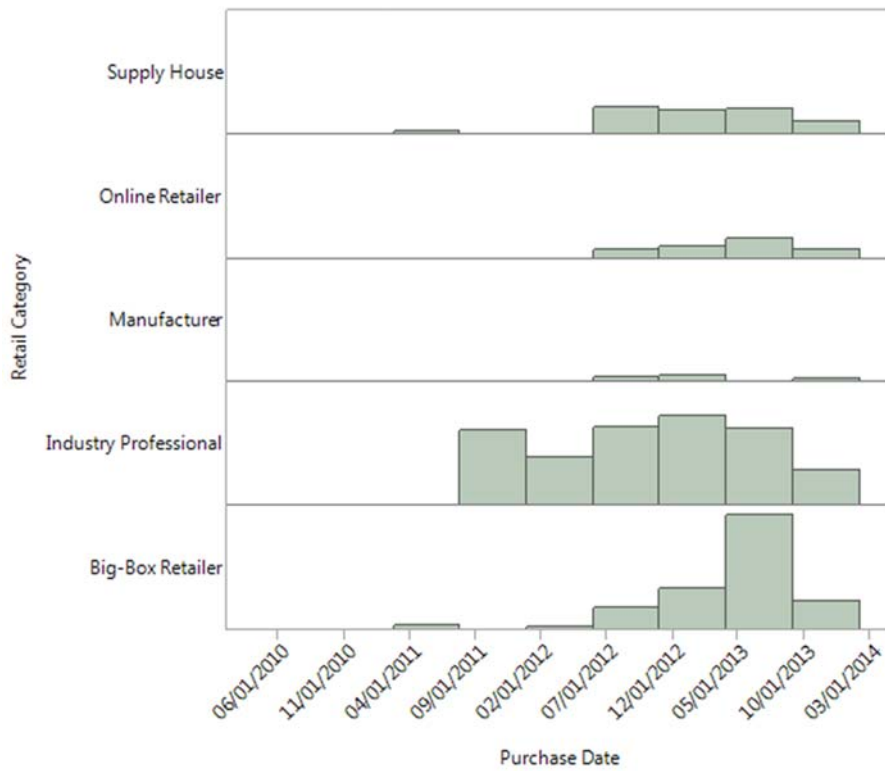


Figure 4. Device purchases over time by retail category.

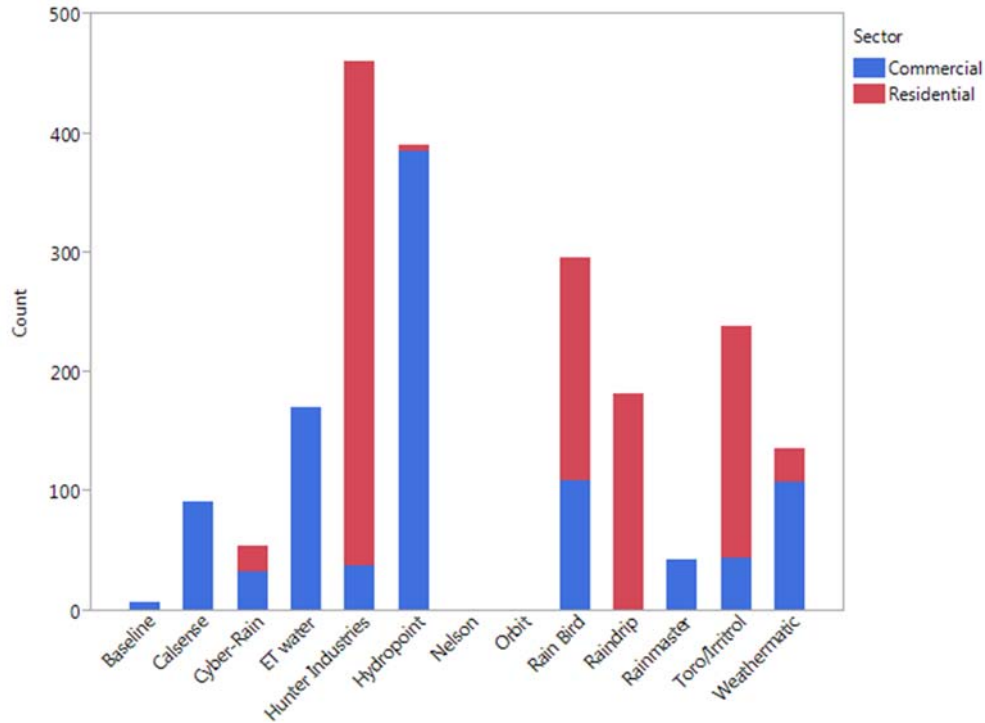


Figure 5. Number of devices installed of each manufacturer brand.

Follow-up Questionnaire Results

As part of the Process Evaluation a follow-up questionnaire was sent to a random sample of the Program participants. The goal of this effort was to assess the overall effectiveness of the OC Smart Irrigation Timer Rebate Program process. Of the 813 participating sites, with valid emails, contacted to participate in the follow-up survey, 213 participants offered responses to the questionnaire, resulting in a 26% response rate, meeting the 20% sample size goal.

From this follow-up questionnaire, the following results are highlighted with regard to the installation of the devices, functionality, and Program satisfaction:

- More than half (54%) of the devices were installed by the end-user rather than by an irrigation/landscape professional (46%). This is contrary to the Program administrator’s hypothesis that these devices would be primarily marketed and installed by industry professionals. This also highlights two helpful points for the continuation of the Program: direct marketing to the end-user is beneficial and the end-user has the capability to install the device despite the initial thought on behalf of the Program administrator that it may be too difficult.
- The satisfaction rating levels regarding the device functionality and Program process are shown in the box-plots¹ in Figures 6 and 7. While the satisfaction levels regarding the device

¹ A box-plot is a way to graphically illustrate elements about the center and spread of data. The median is represented by the line in the box. The median is a common measure of the center of the data. The interquartile range box represents the middle 50% of the data. The whiskers extend from either side of the box. The whiskers represent the ranges for the bottom 25% and the top 25% of the data values, excluding outliers. Outliers are depicted with dots.

Process Evaluation

functionality and ease of use were acceptable, the ratings regarding expectation of water savings were lower than expected. However, when specifically asked if the device resulted in a savings on the water bill 66% of the respondents felt that this device has a positive influence (saved money) on their water bill, 21% were uncertain, and 13% felt that this device was actually responsible for an increase in their water bill (Figure 8).

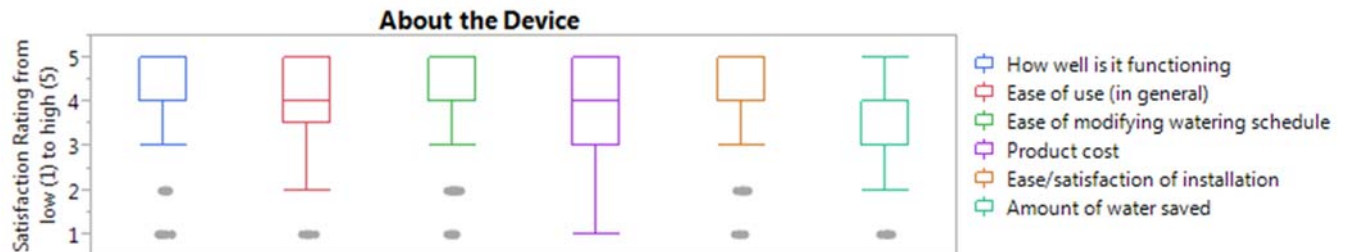


Figure 6. Satisfaction ratings about the device functionality.

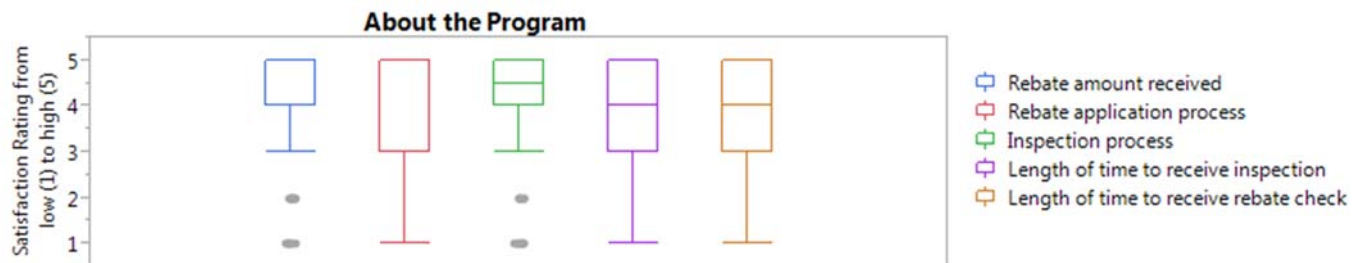


Figure 7. Satisfaction ratings about the Program process.

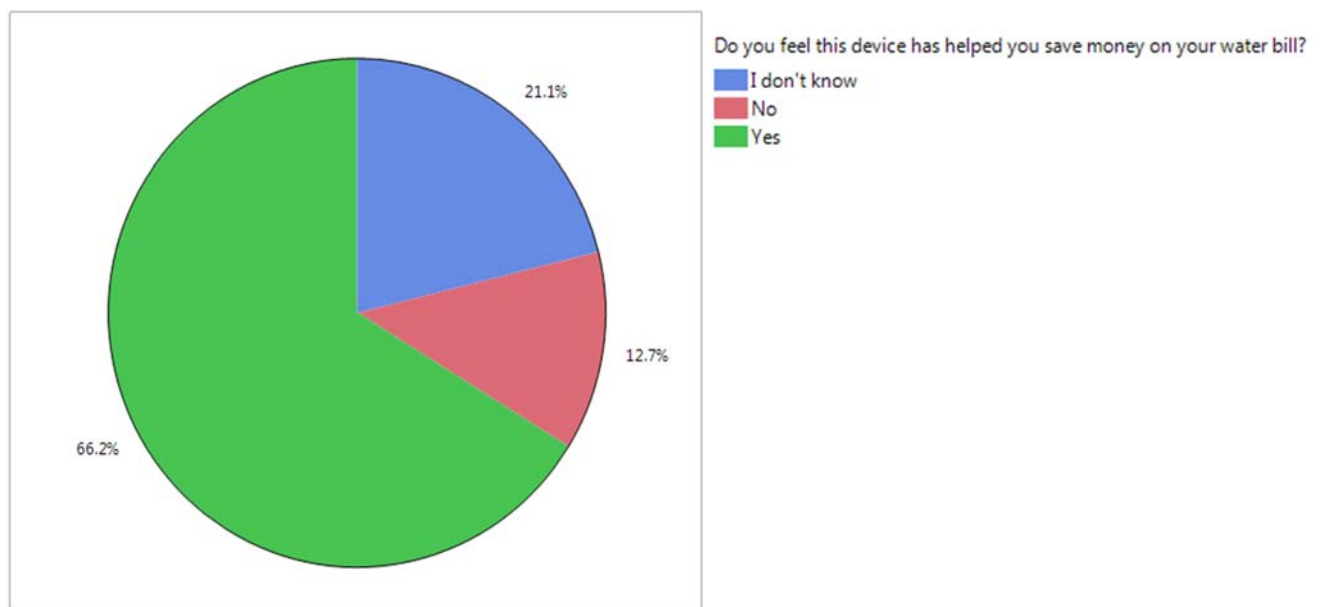


Figure 8. Perception of devices responsibility for a decrease in water bill.

Process Evaluation

- Of the Program participants who answered the questionnaire, 60% received post-installation inspections, 31% did not, and 9% were either uncertain or did not recall. While the receipt of a post-installation inspection did not statistically influence any of the device satisfaction responses, it did however have a significant influence ($p=0.0004$) on the satisfaction level of the length of time to receive the rebate check (Figure 9). With respect to Program continuation, based on these results, it would be prudent to investigate both post-inspection process timing, both scheduling of the post-inspection and processing of the rebate following the inspection itself.

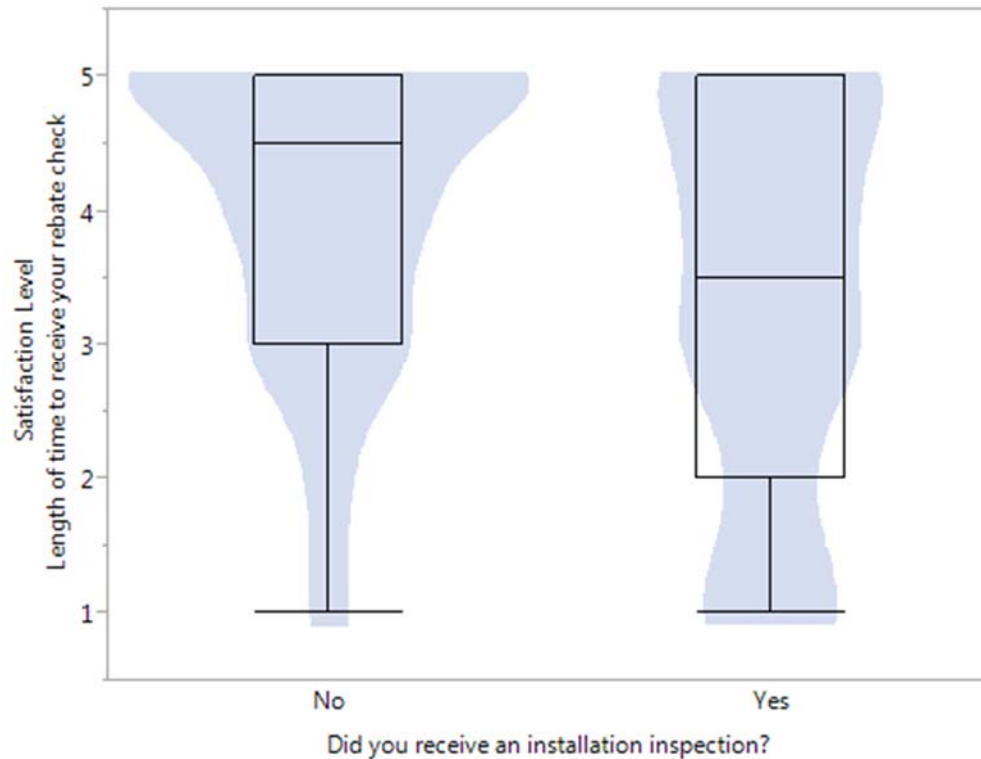


Figure 9. Receipt of post inspection versus length of time to receive the rebate check satisfaction level, from low (1) to high (5).

- Regarding satisfaction levels of device functionality and use, the following correlations were observed:
 - Ease of use in general and ease of modifying schedule with how well the device functioned (Pearson's $r=0.7$)². This correlation was strengthened when the device was installed by the end-user rather than by an industry professional.
 - Perception of how well device functioned positively correlated with perception of how much water it is saving (Pearson's $r=0.6$).
 - Ease of installation with perception of how well the device is functioning ($r=0.6$).

² Pearson's correlation or simply the correlation coefficient is the relationship between variables

Process Evaluation

These correlations in responses point out the importance of empowering/educating the end-user. Comfort level with the device will enhance trust and sustained use.

Impact Evaluation

While the previous section discussed “how well the Program the Program’s process, the Impact Evaluation analysis focuses on the other important question, “how much water has the Program saved?” The judgment of the Program’s efficacy is required by all parties that have funded this Program. MWDOC additionally utilizes these savings estimates for inclusion in its long-term water supply and water use efficiency master plans.

The primary objective of the Program’s Impact Evaluation was to measure the amount of water saved throughout the course of the OC Smart Irrigation Timer Rebate Program. A statistical analysis of the collected data was performed in order to provide insight into the characteristics of sites that participated in the Program and determine if a reduction of water use was due to device installation. The following information describes the methodology of the Program Impact Evaluation.

Monthly meter read data was requested for each site from the retail water agency. Historical water use was requested for a least three years prior to the intervention point and one year following. The intervention point is designated as the point in time when the device was purchased/installed. Water savings was determined by comparing the gallons per day water use prior to and following the intervention point. This methodology allowed for direct comparison of water use based on comparable irrigation need and consistency of site variables that may affect the individual system efficiency. Specifically allowing for the ability to compare not just the net water savings for the sample as a whole, but additionally pairwise analysis for each site resulting in the categorical water use. Categorical water use refers to subsets of trends within the sample set. For example, the entire sample may yield a water savings, but within the sample some percentage of sites resulted in either no variation or an increase in use.

Additionally, the water use data was weather normalized. The weather, evapotranspiration (ETo) and precipitation, data utilized for the weather normalization is graphically depicted in Figure 10. The daily evapotranspiration and precipitation measurements were collected from the California Irrigation Management Information System (CIMIS) weather station number 75 located in Irvine, California. Spatially interpolated or “Spatial ETo” values were collected for additional areas on the basis of zip code. The weather normalization technique used the actual weather corresponding to the date of interest rather than a historic average. Figure 10 depicts the average ETo and precipitation for the analysis period as a point of reference.

Impact Evaluation

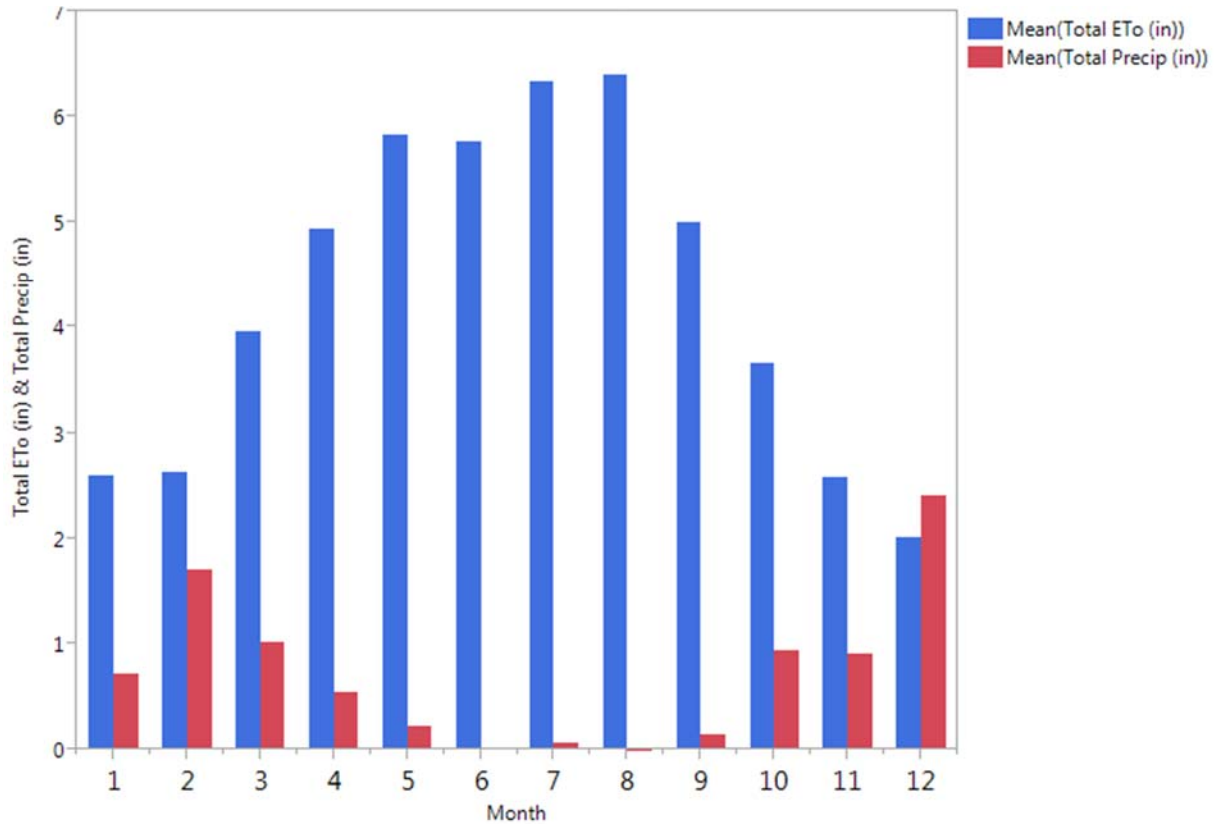


Figure 10. Average monthly evapotranspiration and precipitation during the study period.

The evaluation sample set is comprised of metered water use data received from only those water agencies which were able to provide usable data. The number of usable accounts encompasses 34% of the total Program population. This sample size is both sufficient for analysis and comparable to MWDOC's previous Irrigation Timer Evaluations³. Table 3, describes this evaluation sample. The sample encompasses both residential and commercial sites from the Program participation population. Analyses of residential and commercial customers were performed separately throughout the evaluation.

³ A summary of MWDOC's other program evaluations can be found in Table 6.

Table 3. Number of usable accounts included in the Program Evaluation

Agency	No. of Sites			No. of Meter Reads	
	Total	Residential	Commercial	Pre	Post
El Toro Water District	34	31	3	738	347
Fullerton, City of	50	25	25	986	831
Huntington Beach, City of	93	61	32	3,148	1,388
Irvine Ranch Water District	436	212	224	19,960	8,588
Mesa Water District	38	38	0	3,291	208
Newport Beach, City of	261	261	0	6,502	1,287
Orange, City of	71	55	16	3,901	343
Santa Ana, City of	20	12	8	777	157
Santa Margarita Water District	102	23	79	6,786	4,787
Total	1,105	718	387	46,089	17,936
(Sample %)	(34%)	(35%)	(33%)		

The following assumptions were taken:

- The monthly meter read data that was beyond two standard deviations (95.5%) was not included in the analysis as these data encompassed outliers.
- It was assumed that no significant reduction in interior water use occurred by the customers during the study period. If the analyses indicated significant difference in water use after installation, it was assumed that the installation of the irrigation timer was responsible for the change.
- With respect to the weather normalization, a linear regression relationship was generated for the pre and post periods with their respective water use.

Water Savings Results

Effect of Irrigation Timers on Average Water Use

Net water savings (Table 4) per residential account were estimated from the statistical impact evaluation were found to be 59 gallons per day on average. This would translate to approximately a 10.6% overall water savings or an 18% landscape use reduction based on this sample set. The net water savings per commercial account (Table 4) is estimated to be 320 gallons per day on average, an approximate 9.8% reduction. These estimated savings are averages, taken across the entire year, but do not hold true throughout the year.

Table 4. Water savings results for residential accounts.

	Sector	
	Residential	Commercial
Normalized Mean Savings	59 GPD	320 GPD
Mean Savings	10.6%	9.8%
Prob> t	p<0.001	p<0.004
Alpha (α)	0.05	0.05

Effect of Irrigation Timers on Water Use through the Year

The effect of how these results change throughout the year are also illustrated with the statistical model. Figures 11 and 12 illustrate the seasonal water use. This analysis compares the actual water use pre/post installation of the accounting for variability between time steps, rather than a comparison to a theoretical water demand. The red line depicts the water use prior to the intervention (installation of the smart irrigation timer) and the blue line depicts the water use after the device is installed. For the residential accounts (Figure 11), the water savings can be observed very clearly, with the greatest water savings during the summer and fall months. The water savings is minimal during the winter months, as expected based on local seasonal precipitation patterns.

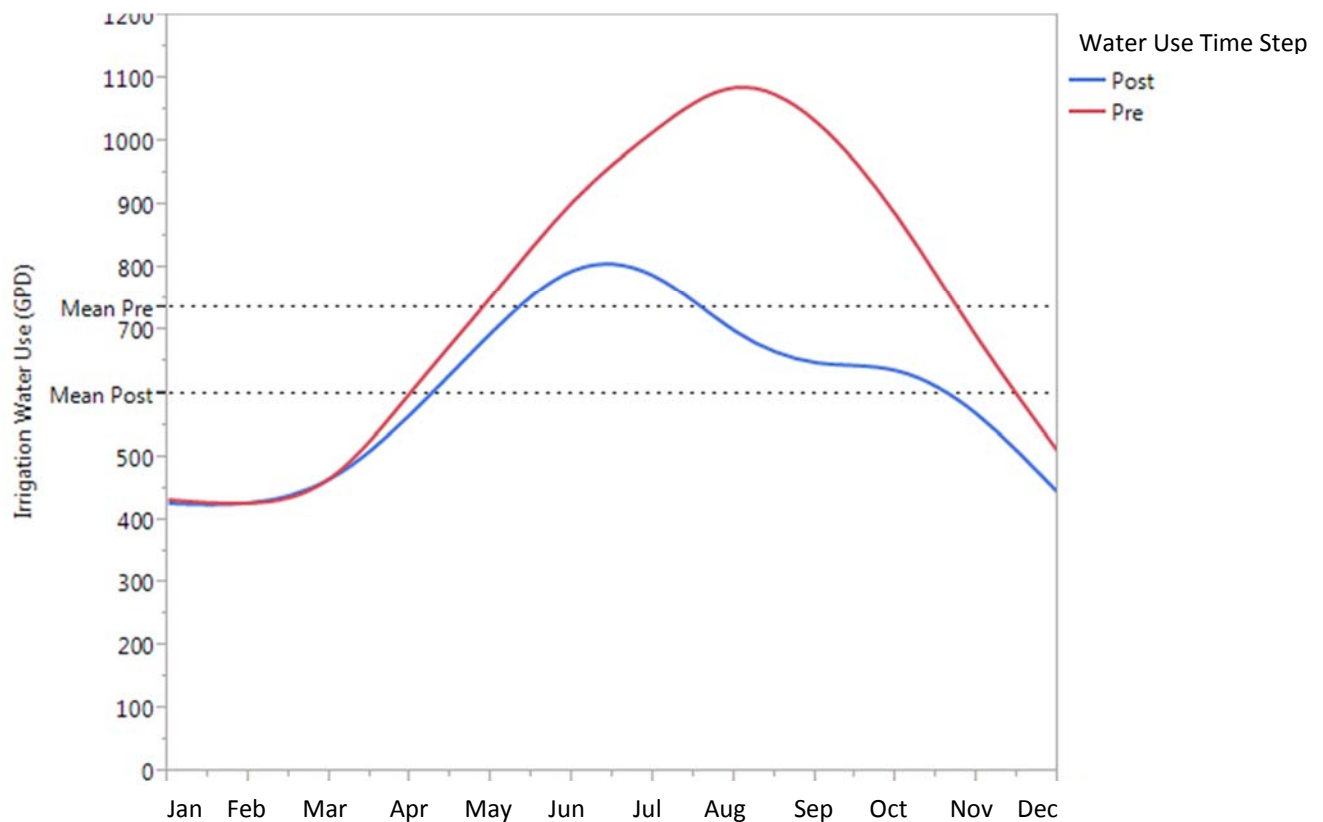


Figure 11. Average monthly irrigation for residential accounts by treatment level.

The commercial results (Figure 12) are more complex. While there is an annual net water savings, the figure illustrates that the time step prior to device implantation has a skewed water use trend. One apparent reason for this laggardly skewed water use curve is the reactive approach of irrigation management at commercial sites. By a site participating in MWDOC’s Water Smart Landscape Program, a water budgeting program that provides monthly irrigation reports to the commercial site, irrigation management could be improved. This or another means of irrigation management is common at large commercial sites.

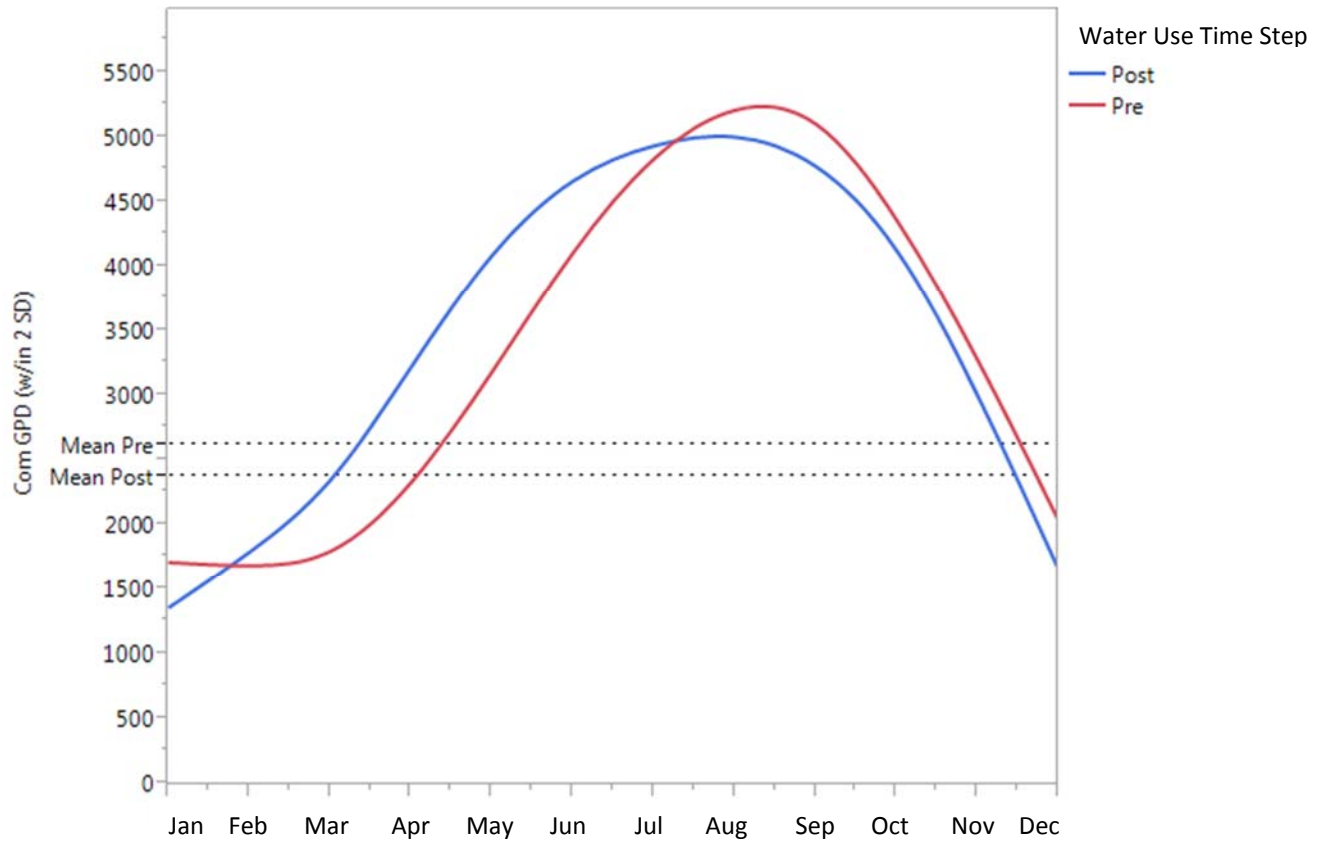


Figure 12. Average monthly irrigation water use for commercial accounts by treatment level.

Results of Pairwise Analysis

While the Impact Analysis highlights the overall water savings of the Program, it is known that such devices do not always result in water savings for each site. A site’s previous irrigation management or watering habits will have an influence on the water savings yielded. To observe this in more detail, the water use for each site is analyzed across the time steps pre/post device installation. The difference in the water use is then categorized into three subsets: decreased use, no significant deviation, and increased use (Table 5). A previous program evaluation conducted on MWDOC’s pilot smart irrigation timer rebate program suggested approximately one-third of water use deviation falls within each of these categories (Kennedy-Jenks, 2010). In this sample set, the water use time step difference slightly favors a decrease in use (Table 5). Similar trends occurred in both the residential and commercial sample sets and depicted in the box-plots in Figures 13 and Figure 14.

Table 5. Water use categorical impact.

Water Use Category	Overall	Residential	Commercial
Decreased Use (-)	45%	47%	44%
No Significant Deviation	37%	36%	38%
Increased Use (+)	18%	17%	18%

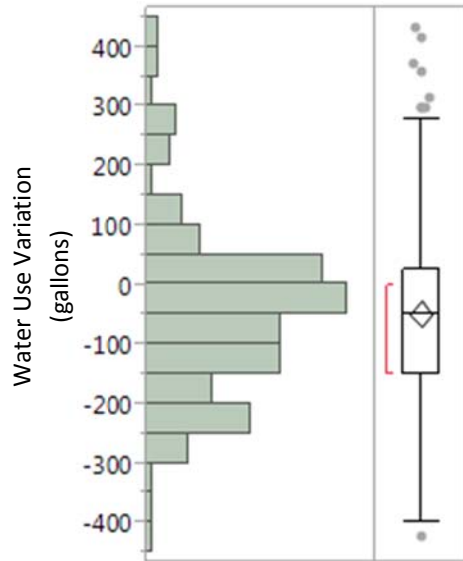


Figure 13. Residential water use time step difference.

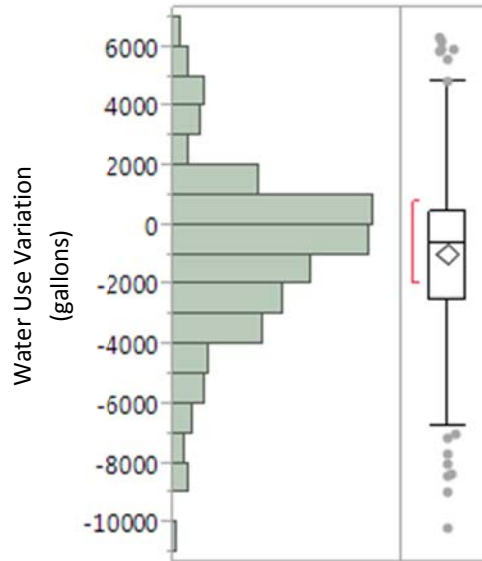


Figure 14. Commercial water use time step difference.

Comparison to Other Evaluations

MWDOC has a long standing commitment of conducting robust statistical water saving evaluations at the completion of program terms. As a means to cross check the result found in this evaluation, and to continue to track the long-term success of this type of rebate program, these results are compared. Table 6 summarizes the previous irrigation timer evaluation results in comparison to this evaluation. To visually observe the results from this evaluation compared the previous evaluations, refer to Figures 15 and 16. These figures illustrate the predictive ellipses ($\alpha=0.05$) generated from the previous evaluation results. The ellipse is the shaded areas in the graph and if formed based on the results (percentage savings and gallons per day savings) of the previous evaluation efforts listed in Table 6. Such ellipses are used to estimate what results could be reasonably transferred in another local program such as this. The results from this evaluation fall within the ellipse, meaning that the results are within the realm of what was expected.

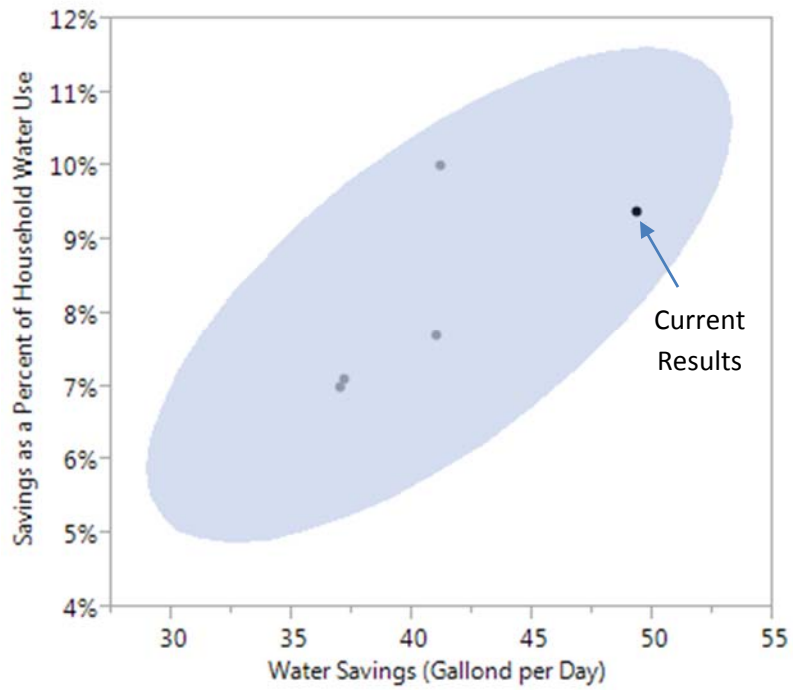


Figure 15. Summary of residential evaluation results including a predictive ellipse.

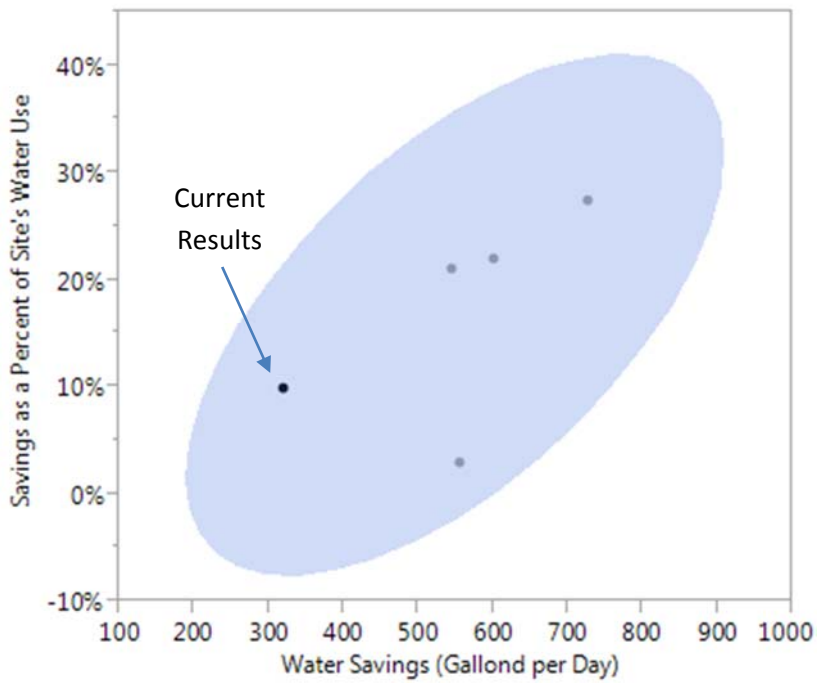


Figure 16. Summary of commercial evaluation results including a predictive ellipse.

Table 6. Summary of MWDOC’s weather-based irrigation timer evaluation results.

Study Title	Author	Residential				Commercial		
		Gallons per Day Savings	No. of Accounts	Percent of Household Water Use	Percent of Landscape Water Use	Gallons per Day Savings	No. of Accounts	Percent Savings
Residential Weather-Based Irrigation Scheduling: Evidence from the Irvine “ET Controller” Study, 2001	Western Policy Research, Anil Bamezai, Ph.D.	37		7%	16%	-	-	-
ET Controller Savings Through the Second Post-Retrocit Year: A Brief Update, 2001	Western Policy Research, Anil Bamezai, Ph.D.	41		8%	18%	-	-	-
Residential Runoff Reduction Study, 2004	A&N Technical Services, Inc., Thomas Chesnutt, Ph.D.	41		10%	-	545		21%
Pilot Implementation of Smart Controllers: Water Conservation, urban Runoff Reduction and Water Quality, 2010	Kennedy/Jenks Consultants, Lawrence Y.C. Leong, Ph.D., QEP	37	899	7%	-	556	209	3%
MWDOC SmarTimer Rebate Program Evaluation, 2011	A&N Technical Services, Inc., Thomas Chesnutt, Ph.D.	49	70	9%	-	727	132	28%
Commercial ET-Based Irrigation Controller Water Savings Study, 2006	A&N Technical Services, Inc., Thomas Chesnutt, Ph.D.	-	-	-	-	601	896	22%
OC Smart Irrigation Timer Rebate Program, 2014 (this Evaluation)	Municipal Water District of Orange County	59	713	11%	18%	320	387	10%

Evaluation Conclusion

This Program Evaluation utilized random sampling of residential and commercial sites to conduct analysis with the following objectives: (1) Program participation trends; (2) Program satisfaction and waster savings perception; and (3) impact on water use.

Participation Trends

Market transformation was illustrated through the reduction in the cost of these devices and increased availability. While industry professionals continue to be the primary source for the end-user to purchase the device, direct purchase of the device by the end-user increased throughout the Program duration. The availability of these devices at big-box retailers now attributes to nearly one-quarter of the direct purchases.

Satisfaction and Water Savings Perception

From the follow-up questionnaire, regarding satisfaction levels regarding the device functionality and use, the following primary correlation was observed relating to ease of use in general and ease of modifying schedule with how well the device functioned. This correlation was strengthened when the device was installed by the end-user rather than by an industry professional. When specifically asked if the device resulted in a savings on their water bill, 66% of the respondents felt that this device has a positive influence (saved them money).

Impact on Water Use

From Program launch, on September 9, 2011, through September 30, 2014, when the Program completed, a total of 2,072 residential timers and 1,803 commercial timers were installed. Based on the estimated sample set, available for the Impact Evaluation, it is estimated that the water savings is 59 gallons per day per residential site and 320 gallons per day per commercial site or 783 acre feet per year of overall Program savings, exceeding the goal by 140%.

Next Steps

Based on the information observed through this evaluation, the following future evaluation steps are recommended:

- With respect to Program continuation, based on these results, it would be prudent to investigate both post-inspection process timing, both scheduling of the post-inspection and processing of the rebate following the inspection itself.
- Query MWDOC's other programs to see if any of these participants also participated in other programs.
- Look at average square footage of sites participating in each evaluation for a better understanding of water savings variations.