Malibu and Topanga Smart Project

Proposition 84 IRWM Implementation Grant
Project 6 - Comprehensive Water Conservation Project

Smart Homes
Save Water
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Overview</td>
<td>3</td>
</tr>
<tr>
<td>Project Development</td>
<td>4</td>
</tr>
<tr>
<td>Project Modifications</td>
<td>5</td>
</tr>
<tr>
<td>Project Operations</td>
<td>6</td>
</tr>
<tr>
<td>Project Suspension</td>
<td>7</td>
</tr>
<tr>
<td>Project Relaunch</td>
<td>8</td>
</tr>
<tr>
<td>Covid-19 Pandemic</td>
<td>11</td>
</tr>
<tr>
<td>Second Project Relaunch</td>
<td>12</td>
</tr>
<tr>
<td>Project Benefits</td>
<td>14</td>
</tr>
<tr>
<td>Marketing And Outreach</td>
<td>19</td>
</tr>
<tr>
<td>Project Schedule</td>
<td>32</td>
</tr>
<tr>
<td>Project Observations</td>
<td>33</td>
</tr>
<tr>
<td>Cost And Disposition Of Funds</td>
<td>34</td>
</tr>
<tr>
<td>Conclusion</td>
<td>41</td>
</tr>
</tbody>
</table>
The City of Malibu, West Basin Municipal Water District, and Los Angeles County Waterworks District 29 (Project partners) received a $1.05 Million Prop 84 grant (Number 4600011488) award to reduce water use by 87.4 acre-feet (AF) per year (1,174.5 lifetime AF) in the City of Malibu and the LA County Unincorporated area of Topanga through the installation of water-saving measures in the highest use residences.

The Comprehensive Water Conservation Project, designed at the height of California’s 2011-2016 drought, was intended to provide a wide range of resources such as rebates, educational classes, indoor/outdoor surveys, smart water meter installations, and consultations.

The Project’s original design targeted the top 500 residential water users offering water efficiency measures focused most heavily on indoor measures as well as turf replacement.
As part of the Project development, the Project team conducted surveys of residents, businesses, and community leaders to determine the best approach to achieving the water savings goal. Additionally, Project staff “walked” targeted sites, viewed aerial property photos, and examined customer data.

The development activities elucidated a number of site characteristics and customer mindsets unique to this homeowner class:

- The highest water use customers have multi-million dollar homes with expansive outdoor acreage and nearly all of it is professionally landscaped, at high expense.
- Most of these owners are not interested in removing their lush rose gardens and lawns. Due to this, turf removal has a lower customer response under the Project.
- Despite highly groomed landscape areas, the preponderance of irrigation systems operate with mismatched and malfunctioning sprinkler heads and low technology controllers.
- Landscape and lawn areas are immense, and it is evident that the highest water savings opportunities exist with outdoor measures.

The team came to understand that the original Project design missed the primary water savings opportunity—that being irrigation measures. For that reason, changes to the Project were required.
PROJECT MODIFICATIONS

In 2018, The City of Malibu, West Basin Municipal Water District, and Los Angeles County Waterworks District 29 requested and received approval from the Department of Water Resources of the following modifications to the Comprehensive Water Conservation Project:

1. Shift Project focus to “smart irrigation” and offer customers a package of the most innovative, proven irrigation technologies available to this market.
2. Reduce the number of turf removal rebates.
3. Eliminate the indoor measures that will not be well accepted by this target group.
4. Retain the indoor measures that are relevant to this target customer.

The newly branded Malibu Smart Topanga Smart Project was tailored specifically for the highest water use residents of Malibu and Topanga Canyon and was uniquely designed to offer robust, step-by-step customer guidance and services.

The Project provided extensive customer support with Project staff conducting a site visit to each interested resident’s home. This allowed the Project staff person to precisely identify ways for the property owner, Estate Manager or Landscape Service Provider to significantly reduce outdoor water usage.

The redesign of the Project also included payment of the incentives directly to landscape contractors for the smart irrigation measures. Many customers rely upon their landscape contractor as a trusted advisor and engaging this group was seen as an effective way to promote the Project and increase response.
Project Operations

The redesigned Malibu and Topanga Smart Project launched in July 2018, targeting the top 500 highest water users.

Two marketing outreach strategies were implemented simultaneously that supported the overall message of smart water conservation.

1. Overall messaging targeted generally to area residents focused on the new water savings technologies and ways customers can make their homes and yards water smart.

2. Project staff conducted direct outreach to the top 500 water users. Among the top 500 users, three major categories were used to classify customers based on their motivations:
   - **Firsts**: early adopters of technology
   - **Heroes**: socially responsible, environmentalist
   - **Investors**: concerned with investment in their home and value

Large landscape customers often require contractor services to perform irrigation and landscape efficiency upgrades, so Project staff conducted outreach to local landscape contractors to enroll them in the Project. Through these efforts, eleven contractors were enrolled as Qualified Project Contractors. Staff met with each contractor to prioritize customer outreach. Throughout the Project, Staff routinely met with contractors to review leads and assist in project development and incentive application completion.

As stated, the outreach team contacted the top 500 water users, predominantly through phone calls and emails.

Site assessments were then conducted for interested customers to develop a site-specific smart irrigation plan for their property.

The team, as appropriate, connected the customer to an approved contractor, supported the customer through installation process.

Eighty-eight site visits were conducted from the start of the Project until the beginning of November 2018. Twenty-four projects were in process and momentum was gaining when a major event impacted operations.
Project Suspension

In early November 2018, Project operations came to a halt when the Woolsey Fire reached Malibu causing a mandatory evacuation.

At this time, the team ceased all outreach activities out of consideration for the community. Operations did not resume until Spring 2019.
PROJECT RELAUNCH

In March 2019, the Project was relaunched utilizing the theme of Rebuild. Save Water. Protect Your Home.

The relaunch included a series of Firescaping workshops. Firescaping uses smart landscaping techniques and native plants to protect homes from wildfires. These practices, combined with smart irrigation systems, can help safeguard home while using less water.

At this time the target customer group was increased from the top 500 to the top 1,000 water users.

The Project relaunch also included utilization of a prominent and well-respected community member- former Malibu Mayor, Laura Rosenthal- to conduct outreach. Project staff, alongside Ms. Rosenthal, met with dozens of customers.

Over the course of the next year, response increased, and dozens of projects were implemented. From these projects, four of them were selected to be used as Project case studies. With support of the homeowners, the case study projects were featured in promotional materials and outreach activities.
The Clarfields Saved a Whopping 385,000 Gallons of Water a Year

When Mitch and Chris Clarfield got a call from MALIBU SMART about reducing water use at their property, they said “Yes, help us.” So, we did.

One of our MALIBU SMART certified consultants went out to the Clarfield property – a challenging site to water due to significant slopes, multiple levels, a great variety of trees and plants, and various types of irrigation equipment. The consultant provided the Clarfields with easy-to-implement recommendations. Shortly thereafter, the MALIBU SMART team worked directly with Mitch and his gardener to put the plan into action including:

- Fixing numerous broken sprinkler heads
- Installing high efficiency sprinkler nozzles
- Installing smart irrigation timers

MALIBU SMART offers extensive rebates to customers who install high efficiency sprinklers or replace their lawns.

For more information and to schedule an assessment, please call 310-554-6210 or visit www.malibusmart.org.

Simple Fixes Resulted in 38% Off the Clarfield’s Water Bill

“The assessment Malibu Smart provided was super helpful. Recommendations were simple and straightforward. Landscape is doing great and our trees are all doing well. Everything is thriving, even with no rain. The only thing we would do different is do it sooner.” — The Clarfields

Customer Options

| OPTION 1 | Take advantage of FREE high efficiency sprinkler nozzles with FREE installation. It’s quick, easy, and—as we said—FREE! |
| OPTION 2 | Replace your lawn with climate appropriate plants and efficient irrigation. Get $5 per square foot back while your landscape becomes drought and fire resilient. |
| OPTION 3 | Replace your lawn with climate appropriate plants and efficient irrigation. Get $5 per square foot back while your landscape becomes drought and fire resilient. |

The O’Bryans Installed a New High Efficiency Sprinkler System and Reduced Their Water Bill by 25%!

Conserving water is important to Duross and Cyndi O’Bryan, but they didn’t know how to go about it. What’s more, they entertain outdoors regularly, so they wanted to keep their grass intact. Not to worry. By installing a new high efficiency irrigation system and smart timers, the O’Bryans have cut their water usage by 50% and they still have their full lawn.

The O’Bryans invited the MALIBU SMART team out to their home to assess the property and make recommendations for conserving water. It was an easy decision to move forward. The payback was attractive and the process was straightforward. They scheduled program contractor Valley Soil to come to their property and install:

- New pressure regulating sprinkler heads
- New high efficiency sprinkler nozzles
- New smart irrigation timers

MALIBU SMART offers extensive rebates to customers who install high efficiency sprinklers or replace their lawns.

Even better, the investment had a payback of less than one month.

“Participation was seamless. MALIBU SMART was timely and professional. Now the system automatically adjusts the watering based on local weather, including wind or rain events. – the new technology is working great. We’ve been able to keep our lawn and it looks better than ever.” — The O’Bryans

Customer Options

| OPTION 1 | Take advantage of FREE high efficiency sprinkler nozzles with FREE installation. It’s quick, easy, and—as we said—FREE! |
| OPTION 2 | For larger properties, take advantage of generous incentives for comprehensive sprinkler system upgrades. Get the newest technology and see significant savings all with a quick payback. |
| OPTION 3 | For larger properties, take advantage of generous incentives for comprehensive sprinkler system upgrades. Get the newest technology and see significant savings all with a quick payback. |
With Generous Rebates, The Sarmientos Completely Transformed Their Landscape

"The MALIBU SMART Folks Did the Assessment, Installed the New Sprinkler Nozzles, Coordinated the Landscape Contractor and Did All the Paperwork. The Program is So Easy."

"By making the recommended changes, we were able to transform our damaged landscape and make our whole property more inviting to family and friends." — The Sarmientos

Ellen and Cesar Sarmiento didn't hold back when they heard about the MALIBU SMART program. From high efficiency sprinklers to lawn replacement, they said yes to it all. And, after their landscape had burned in the Woosley Fire, the program helped them create a more inviting landscape that will help protect their property from future fire damage.

- Removed 6,400+ square feet of grass and replaced with native landscaping and fruit trees
- Installed new sprinkler heads, nozzles & drip irrigation
- Installed new smart irrigation timer
- Installed 100 gallon rain barrel

MALIBU SMART offers extensive rebates to customers who install high efficiency sprinklers or replace their lawns.

Customer Options

OPTION 1
Take advantage of FREE high efficiency sprinkler nozzles with FREE installation. It’s quick, easy, and—as we said—FREE!

OPTION 2
For larger properties, take advantage of generous incentives for comprehensive sprinkler system upgrades. Get the newest technology and see significant savings all with a quick payback.

OPTION 3
Replace your lawn with climate appropriate plants and efficient irrigation. Get $5 per square foot back while your landscape becomes drought and fire resilient.

Steven Sindell Installed a New High Efficiency Sprinkler System and Reduced His Water Bill by 65%!

Steven Sindell knew he was using too much water, but he didn’t know how much or what to do about it. Before, his lawn was either over or under watered – today the property looks great.

"I’m so glad I did it. It was worth the small investment, and now I can better manage my water use. I don’t have one complaint - it was easy." — Steven Sindell

Steven Sindell was happy when MALIBU SMART came out to his home, did a free assessment, and helped him put a plan into action that would conserve water, while improving the look of his property and saving money each month.

Steven says all he had to do was coordinate appointment times and now, his lawn has never looked better. Program Contractor, Valley Soil, installed:

- New pressure regulating sprinkler heads
- New high efficiency sprinkler nozzles
- New smart irrigation timers

MALIBU SMART offers extensive rebates to customers who install high efficiency sprinklers or replace their lawns.

Customer Options

OPTION 1
Take advantage of FREE high efficiency sprinkler nozzles with FREE installation. It’s quick, easy, and—as we said—FREE!

OPTION 2
For larger properties, take advantage of generous incentives for comprehensive sprinkler system upgrades. Get the newest technology and see significant savings all with a quick payback.

OPTION 3
Replace your lawn with climate appropriate plants and efficient irrigation. Get $5 per square foot back while your landscape becomes drought and fire resilient.
COVID-19 PANDEMIC

In March 2020, that yet another major event impacted operations and caused modifications in Project procedures—*the COVID pandemic*.

All activities involving in-person meetings and community events were permanently suspended including:

- In-home meetings with customers to review their water use and savings opportunities.
- On-site home water use surveys to evaluate indoor and outdoor water use.
- On-site landscape and irrigation system evaluations.
- Installation of high-efficiency sprinkler nozzles at customer homes.
- Pre-installation inspection of customer properties to determine Project eligibility.
- Post-installation inspections of customer properties to ensure water savings equipment was installed.
- Educational classes & workshops for California Friendly Landscaping, Turf Removal, and Firescaping.
- Rain Barrel distribution events.

The suspension of activities delayed implementation of customer projects and required an extension of the grant agreement. DWR approved an extension through December 2024.
Second Project Relaunch

In the summer of 2020, the project was relaunched once again. An extensive email and social media campaign was launched to promote the Project to all Malibu and Topanga residents. The campaign:

• Focused on outdoor living.
• Targeted three categories believed to be of the most interest to customers – smart controllers, turf replacement, and general rebates.
• Highlighted the increased smart controller and turf replacement rebate amounts.
• Provided more visual ads and videos.
• Promoted the case studies.
The outreach methods included three primary approaches:

1. **Direct mail postcards**
2. **Social media ads for Facebook, NextDoor, and Instagram**
3. **Emails**

In December 2021, face-to-face customer site visits were still suspended but Project staff was looking to maximize participation. To boost participation the Project began offering the direct installation of smart irrigation controllers through project contractors.
PROJECT BENEFITS

Goal success was achieved despite the challenges of the Woolsey Fire and the COVID pandemic.

The primary objective of the Project was to reduce water use by 87.4 AF per year. The actual lifetime water savings is 96.62 AF per year, 111% of goal. The lifetime water savings was estimated at 1,174.5 AF. The actual lifetime water savings is 1,808.28 AF, 153% of goal.

Reduced demand for potable water also results in reduced energy used to convey and treat potable water supplies and thereby reduction of greenhouse gas (GHG) emissions. Thus, a secondary benefit was estimated annual energy savings of 287,737 kWh per year and GHG emission reductions of 79,889 kg CO2e per year. The actual energy savings equates to 317,687 kWh per year and GHG emission reductions of 88,317 kg CO2e per year.

At project completion, 75% of the water savings came from projects implemented in the City of Malibu, and the remaining 25% from the Topanga Canyon area. This is representative of the percentage of housing population per community.

<table>
<thead>
<tr>
<th>Project Results: Goal vs Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goal</strong></td>
</tr>
<tr>
<td>Annual Water Savings</td>
</tr>
<tr>
<td>Lifetime Water Savings</td>
</tr>
<tr>
<td>Energy Savings</td>
</tr>
<tr>
<td>GHG Emission Reduction</td>
</tr>
</tbody>
</table>
WATER SAVINGS MEASURES

The water savings measures, offered to customers, changed over the course of the project as:

1. Project staff learned more about customers' preferred measures,
2. The Woolsey Fire redefined customer priorities, and
3. The COVID pandemic curbed in-person customer contact.

The original measures and goals; modifications; and actual number of installations is shown in the chart on the right.

<table>
<thead>
<tr>
<th>Water Saving Measure</th>
<th>Original Grant Proposal Quantity</th>
<th>Project Modification April 2018 Quantity</th>
<th>Actual Installed Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ADDED MEASURES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smart Irrigation Controllers</td>
<td>NA</td>
<td>75</td>
<td>291</td>
</tr>
<tr>
<td>Flow Sensors with Master Valve</td>
<td>NA</td>
<td>75</td>
<td>3</td>
</tr>
<tr>
<td>Pressure Regulating Spray Heads</td>
<td>NA</td>
<td>27,000</td>
<td>389</td>
</tr>
<tr>
<td>High Efficiency Sprinkler Nozzles</td>
<td>NA</td>
<td>27,000</td>
<td>1,918</td>
</tr>
<tr>
<td><strong>EXISTING MEASURES- KEPT SAME ACTIVITY LEVEL GOALS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graywater Reuse Retrofits</td>
<td>25</td>
<td>25</td>
<td>0</td>
</tr>
<tr>
<td>Smart Water Meters</td>
<td>400</td>
<td>400</td>
<td>2,446</td>
</tr>
<tr>
<td>Cisterns</td>
<td>25</td>
<td>25</td>
<td>3</td>
</tr>
<tr>
<td><strong>EXISTING MEASURES- LOWERED ACTIVITY LEVEL GOALS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turf Replacement</td>
<td>200,000</td>
<td>100,000</td>
<td>65,739</td>
</tr>
<tr>
<td>High Efficiency Clothes Washers</td>
<td>100</td>
<td>50</td>
<td>77</td>
</tr>
<tr>
<td>High Efficiency Toilets</td>
<td>1,000</td>
<td>50</td>
<td>11</td>
</tr>
<tr>
<td>Rain Barrels</td>
<td>1,000</td>
<td>100</td>
<td>156</td>
</tr>
<tr>
<td><strong>EXISTING MEASURES- MODIFIED INCENTIVE LEVEL</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drip Irrigation</td>
<td>400 kits</td>
<td>30,000 SF</td>
<td>32,800 SF</td>
</tr>
<tr>
<td><strong>ELIMINATED MEASURES FROM PROJECT</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thermal Showerhead Shut-off Adapters</td>
<td>1,000</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Hot Water Distribution Systems</td>
<td>100</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

As can be seen in the above chart, several measures did not actually meet the Project's installation goals. On the other hand, smart water meters greatly exceeded the goal of 400, showing actual installation of 2,446 smart water meters.
## WATER SAVINGS

<table>
<thead>
<tr>
<th>Water Saving Measure</th>
<th>Quantity</th>
<th>Per Unit Savings</th>
<th>Annual Water Savings (GAL)</th>
<th>Annual Water Savings (AF)</th>
<th>Lifetime Water Savings (AF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smart Meters</td>
<td>2,446</td>
<td>6,843</td>
<td>16,737,978</td>
<td>51.37</td>
<td>1,284.17</td>
</tr>
<tr>
<td>High Efficiency Sprinkler Nozzles</td>
<td>1,963</td>
<td>2,263</td>
<td>4,442,269</td>
<td>13.63</td>
<td>68.16</td>
</tr>
<tr>
<td>Smart Irrigation Controllers (&gt; 1 acre)</td>
<td>35</td>
<td>5,833</td>
<td>3,138,154</td>
<td>9.63</td>
<td>96.31</td>
</tr>
<tr>
<td>Smart Irrigation Controllers (&lt; 1 acre)</td>
<td>231</td>
<td>13,490</td>
<td>3,116,190</td>
<td>9.56</td>
<td>95.63</td>
</tr>
<tr>
<td>Turf Replacement</td>
<td>65,739</td>
<td>34</td>
<td>2,235,126</td>
<td>6.86</td>
<td>205.78</td>
</tr>
<tr>
<td>High Efficiency Clothes Washers</td>
<td>77</td>
<td>10,688</td>
<td>822,976</td>
<td>2.53</td>
<td>35.36</td>
</tr>
<tr>
<td>Drip Irrigation</td>
<td>32,800</td>
<td>14</td>
<td>459,200</td>
<td>1.41</td>
<td>7.05</td>
</tr>
<tr>
<td>Pressure Regulating Spray Heads</td>
<td>389</td>
<td>835</td>
<td>324,815</td>
<td>1.00</td>
<td>9.97</td>
</tr>
<tr>
<td>Rain Barrels</td>
<td>156</td>
<td>621</td>
<td>96,876</td>
<td>0.30</td>
<td>1.49</td>
</tr>
<tr>
<td>Irrigation Flow Sensors</td>
<td>3</td>
<td>20,753</td>
<td>62,259</td>
<td>0.19</td>
<td>1.91</td>
</tr>
<tr>
<td>High Efficiency Toilets</td>
<td>11</td>
<td>3,421</td>
<td>37,631</td>
<td>0.12</td>
<td>2.31</td>
</tr>
<tr>
<td>Cisterns</td>
<td>3</td>
<td>3,019</td>
<td>9,057</td>
<td>0.03</td>
<td>0.14</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>31,482,531</strong></td>
<td><strong>96.62</strong></td>
<td><strong>1,808.28</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Savings average of controllers > acre = 13,490 GPY and controller > acre = 5,833 GPY/station.
** Savings average of small cistern = 2,476 GPY, medium cistern = 3,063 GPY, and large cistern = 3,519 GY.

As shown in the chart to the left, the highest acre-feet (AF) per year savings rank as follows:

- The majority of annual water savings came from smart water meters, with 51.37 AFY; achieved through LA County Waterworks direct installation.
- The second highest annual water savings was achieved through installation of smart irrigation controllers, with 19.19 AFY; achieved through rebates and contractor direct installations.
- The third highest annual savings was through high efficiency sprinkler nozzles, at 13.63 AFY.

The highest lifetime AF savings are as follows:

- Smart water meters, with 1,284.17 lifetime AF savings.
- Turf replacement, with an expected life of 30 years has the second highest lifetime savings, at 205.78 lifetime AF.
- Smart irrigation controllers delivered the third highest lifetime savings, at 202.29 lifetime AF savings.
**DESCRIPTIONS OF METHODS USED TO ESTIMATE PHYSICAL BENEFITS**

**Water Savings**

The measurement of water savings has been projected using pre-determined or deemed unit savings estimates. Water savings for the majority of devices are based upon Metropolitan Water District’s (MWD) Water Savings assumptions. MWD’s savings methodologies are derived from numerous industry-accepted studies including studies done by MWD, its member agencies, national studies and standards, and energy utilities.

For smart water meters, savings from the United States Environmental Protection Agency’s Water Audits and Water Loss Control for Public Water Systems Report was utilized. It was estimated that a water agency can reduce water loss due to leaks by approximately 6.6%.

The table to the right includes each targeted measure, the per unit annual water savings, the life of savings, and associated savings sources.

<table>
<thead>
<tr>
<th>Water Saving Measure</th>
<th>Unit of Measurement</th>
<th>Per Unit Water Savings (GPY)</th>
<th>Life of Savings (Years)</th>
<th>Savings Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smart Irrigation Controllers (&gt; 1 Acre)</td>
<td>Station</td>
<td>5,833</td>
<td>10</td>
<td>MWD SoCal WaterSmart Savings Summary</td>
</tr>
<tr>
<td>Smart Irrigation Controllers (&lt; 1 Acre)</td>
<td>Controller</td>
<td>13,490</td>
<td>10</td>
<td>MWD SoCal WaterSmart Savings Summary</td>
</tr>
<tr>
<td>Flow Sensors with Master Valves</td>
<td>Sensor</td>
<td>20,753</td>
<td>10</td>
<td>California Water Service Company Irrigation Rebate Analysis</td>
</tr>
<tr>
<td>Pressure Regulating Spray Heads</td>
<td>Spray Head</td>
<td>835</td>
<td>10</td>
<td>California Water Service Company Irrigation Rebate Analysis</td>
</tr>
<tr>
<td>High Efficiency Sprinkler Nozzles (Large Landscapes)</td>
<td>Nozzle</td>
<td>2,263</td>
<td>5</td>
<td>MWD High Efficiency Nozzle Evaluation, Measurement and Verification Report</td>
</tr>
<tr>
<td>Smart Water Meters</td>
<td>Meter</td>
<td>6,843</td>
<td>5</td>
<td>US Environmental Protection Agency Water Audit and Water Loss Control Pilot</td>
</tr>
<tr>
<td>Cisterns</td>
<td>Cistern</td>
<td>3,063</td>
<td>5</td>
<td>MWD SoCal WaterSmart Savings Summary</td>
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<tr>
<td>Turf Replacement</td>
<td>Square foot</td>
<td>34 per SF</td>
<td>30</td>
<td>MWD SoCal WaterSmart Savings Summary</td>
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<td>High Efficiency Clothes Washers</td>
<td>Washer</td>
<td>10,688</td>
<td>14</td>
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<td>Barrel</td>
<td>621</td>
<td>5</td>
<td>MWD SoCal WaterSmart Savings Summary</td>
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<tr>
<td>Drip Irrigation</td>
<td>Square Foot</td>
<td>14</td>
<td>5</td>
<td>Municipal Water District of Orange County Drip Irrigation Analysis</td>
</tr>
</tbody>
</table>
Energy and Greenhouse Gas Emission Reductions

Imported water for Los Angeles County Waterworks District 29 is a blend of 61% California State Water Project (SWP) and 39% Colorado River Aqueduct (CRA). According to the Department of Water Resources, approximately 4,126 kilowatt-hours per acre-foot (kWh/AF) is required for conveyance and pumping of SWP water to the Oso Pumping Plant (DWR Bulletin B-132-10, 2013), which is the nearest SWP pumping plant to the Greater Los Angeles County Region. Similarly, approximately 1,976 kWh/AF is required to convey CRA water to the Region (CPUC Study, page 64). Based on the ratio of these supplies, an estimated 3,288 kWh/AF of energy is used to provide imported supplies to Southern California agencies.

Additionally, the Project would avoid greenhouse gas emissions generated by the energy needed to import water. This value was calculated by applying the annual total-output statewide emission rate of 0.278 kg of CO2e per kWh from the U.S. Environmental Protection Agency Emissions and Generation Resource Integrated Database for the CAMX sub-region.
MARKETING AND OUTREACH

The Project marketing materials focused on the value to a customer in creating a smart home and smart irrigation system. Depending on the Project phase, themes and messaging were modified to best resonate with the customer based upon the current circumstances.

Themes/Messaging over the course of the Project included:

• Keep Your Green: Upgrade to Smart Irrigation
• How Smart is Your Home If It Isn’t Water Smart?
• Turf Removal Rebate Increases: Act Now
• Help Your Community Save 28 Million Gallons of Water a Year
• Rebuild. Save water. Protect your home.
• Firescaping Your Yard Saves Water
• Start Saving Now – Limited Time Rebates Available

Additionally, four case studies were created, showcasing customers’ water-saving success stories, achieved by participating in the Malibu Smart Project.

Below are samples of the collateral used to market the Project.
INITIAL PROJECT FLYERS

The Project flyers, below, introduced the idea that customers could create water savings, without compromising their quality of life, by utilizing smart technologies and high efficiency products. The flyers listed the Project offerings, along with the incentives for each.

Flyers were distributed through community events, local restaurants and retail shops, as well as customer in-person meetings.
INCREASED REBATE POSTCARD

The following postcard was used to inform customers about the increase in the rebate amount for turf replacement, in hopes of increasing response for this Project measure.

Turf Removal
Rebate Increases

Malibu residents can now get $3 per square foot when replacing their lawns with more sustainable landscaping.

In addition to the larger rebate, the maximum square footage has been increased to 5,000 square feet for residential and 50,000 square feet for commercial properties.

Restrictions apply. Synthetic turf is not eligible for the program. Some limitations have been waived for residents recovering from the recent fires.

More information can be found at bewaterwise.com.

Applications for the rebate will be available beginning April 1. Additional water-saving rebates for Malibu residents can also be found at malibusmart.org.
COMMUNITY WATER SAVING GOAL FLYERS

Understanding that customers in Malibu and Topanga possess a strong sense of community during times of need, the above flyers headlined the community goal to annually save 28 million gallons by taking action to implement incentivized water saving measures.

Keep Your Green: Upgrade to Smart Irrigation
You’ll Be Surprised by How Smart Your Yard Can Be

SMART IRRIGATION PACKAGES REBATES
Combine some or all of these technologies to get the most water savings and a greater rebate.

- **$35 PER NOZZLE**
  - PRESSURE REGULATING SPRAY HEADS + CHECK VALVES
    - Prevents runoff and reduces water waste by regulating water pressure

- **$9 PER UNIT**
  - SMART CLOUD-BASED IRRIGATION CONTROLLER
    - Tracks local weather to determine when and how much to water

- **$25 PER NOZZLE**
  - DRIPLINE SPRINKLER SYSTEM
    - Reduces overwatering by applying water near plant roots

- **$6 PER UNIT**
  - SMART CLOUD-BASED IRRIGATION CONTROLLER
    - Tracks local weather to determine when and how much to water

Maintain Your Landscape. Use Less Water. Save Money.
You can have it all. Protect and enhance the landscaping investments you’ve made by upgrading to smart irrigation technologies, and enjoy the benefits of long-term water and cost savings – plus rebates.

Qualified homes in Topanga can get up to $10,000 in rebates for installing a Smart Irrigation Package.

For rebates and water-saving tips, visit socalwatersmart.com.

How smart is your home if it isn’t water smart?
Water Smart Rebates for High Efficiency Products

Water Smart Rebates for High Efficiency Products

- **GRAYWATER SYSTEM** $100
- **IRRIGATION CONTROLLERS** $80
- **RAIN BARRELS + CISTERN** $35-350
- **CLOTHES WASHERS** $85
- **TOILETS** $40
- **SPRINKLER NOZZLES** $2 PER NOZZLE
- **CLOTHES WASHERS** $85
- **TOILETS** $40
- **RAIN BARRELS + CISTERN** $35-350
- **CLOTHES WASHERS** $85
- **TOILETS** $40
- **RAIN BARRELS + CISTERN** $35-350
- **CLOTHES WASHERS** $85
- **TOILETS** $40
- **RAIN BARRELS + CISTERN** $35-350

For rebates and water-saving tips, visit socalwatersmart.com.

Apply for rebates today!
Call 310-554-6210 or email water@topangasmart.org to get more information and schedule a consultation. Restrictions apply.

For more info about the Graywater program, visit westbasin.org/greywater

APPLY FOR REBATES TODAY!
AFTER THE WOOSLEY FIRE

With occurrence of the Woosley Fire, customers were highly cognizant of the need to firescape their property's while using water as efficiently as possible. The following flyers illustrated the means to accomplish this by taking advantage of the Project's smart irrigation rebates.

Turf Removal Rebate Increases

Malibu residents can now get $3 per square foot when replacing their lawns with more sustainable landscaping. In addition to the larger rebate, the maximum square footage has been increased to 5,000 square feet for residential and 50,000 square feet for commercial properties. Restrictions apply. Synthetic turf is not eligible for the program. Some limitations have been waived for residents recovering from the recent fires.

More information can be found at bewaterwise.com.

Applications for the turf removal rebate will be available beginning April 1.

Making Every Drop Count

No-Cost Water Assessments + Audits

Customers can get a review of indoor and outdoor water systems FREE of charge through the following programs.

Landscape Irrigation Assessment

The Landscape Irrigation Efficiency Program (L.I.E.P.) offers the opportunity to find water savings with a FREE irrigation assessment by a certified landscape professional, and receive high efficiency sprinkler nozzles installed for FREE.*

To schedule a FREE landscape assessment contact WaterWise Consulting at 888-987-9473 or email info@waterwise-consulting.com.

*Not all customers may qualify for free sprinkler nozzles. Quantities are limited and are ordered on a first-come, first-served basis until funds are exhausted.

Indoor & Outdoor Water Audits

Receive a comprehensive indoor and outdoor water review and leak check. The FREE inspection includes toilets, sinks, showers, dish and clothes washer, sprinklers, valves and plants.

When the survey is complete, customers will receive a detailed report with suggestions and recommendations to reduce overall water use. Surveys typically take about 1-2 hours to complete. The customer makes the decision to fix leaks and implement recommendations.

We encourage customers to participate in the assessment.

To request this FREE indoor and outdoor water audit, submit a request to wateraudit@dpw.lacounty.gov.

Start saving now! Apply for rebates at socalwatersmart.com.

Subject to available funds, and restrictions apply. Some restrictions lifted for those impacted by the Woolsey fire. Learn more about firescaping resources and either the Malibu Smart program at malibusmart.org or Topanga Smart program at topangasmart.org.

$3 PER SQ FT

$100 GRAYWATER SYSTEM
$85 CLOTHES WASHERS
$40 TOILETS
$35-350 RAIN BARRELS & CISTERNs
$80 IRRIGATION CONTROLLERS
$2 Per Nozzle SPINKLER NOZZLES

Making Every Drop Count

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The Landscape Irrigation Efficiency Program (L.I.E.P.) offers the opportunity to find water savings with a FREE irrigation assessment by a certified landscape professional, and receive high efficiency sprinkler nozzles installed for FREE.*

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Start saving now! Apply for rebates at socalwatersmart.com.

Subject to available funds, and restrictions apply. Some restrictions lifted for those impacted by the Woolsey fire. Learn more about firescaping resources and either the Malibu Smart program at malibusmart.org or Topanga Smart program at topangasmart.org.
FIRESCAPING WORKSHOPS AND WEBINARS

Firescaping Workshops and Webinars were offered to customers as shown in the following marketing pieces:

Firescaping uses smart landscaping techniques and native plans to protect your home from wildfires. These practices combined with smart irrigation systems can help you safeguard your investment, use less water and save money on your water bill.

Please join us at one of two FREE workshops to:
- Identify high-risk landscapes
- Get tips for reducing your fire risk
- Learn which plants and building materials help minimize damage
- Make your home more firefighter-accessible

Rebuild. Save Water. Protect Your Home.

There are discounts for water-saving products and services available through 2019, for all residents, including landscaping that was damaged or destroyed by the fire. Firescaping and water-saving resources available at malibusmart.org.

Firescaping Workshop

**FIND OUT WHICH LANDSCAPES HAVE A HIGH FIRE RISK AND WHY**

**FREE**

Firescaping Workshop

**FIND OUT WHICH LANDSCAPES HAVE A HIGH FIRE RISK AND WHY**

**FREE**

Firescaping Workshop

**FIND OUT WHICH LANDSCAPES HAVE A HIGH FIRE RISK AND WHY**

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Firescaping Workshop

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**FREE**

Firescaping Workshop

**FIND OUT WHICH LANDSCAPES HAVE A HIGH FIRE RISK AND WHY**

**FREE**

Firescaping Workshop
POSTCARDS AND DIRECT MAIL

Postcards and direct mail were added later in the Project to inform customers that Project measures were available only for a limited time:

**West Basin Municipal Water District**

**For A Limited Time - Receive $5 Per Square Foot**

**Save water, save money, live well.**

With more time spent at home, there’s no better time to turn your backyard into an outdoor living space.

- Control your watering scheduling from your phone or tablet
- Easily adjust the watering schedule based on the weather, saving water and money!
- Get a $56 rebates for switching out your old standard sprinkler timers for smart timers

For more information on available rebates, visit [www.socalwatersmart.com](http://www.socalwatersmart.com).

- Create a beautiful landscape that doubles as an outdoor living room, dining room and entertaining area – all while saving water.
- Today, Malibu residents are eligible for the highest ever rebate on lawn replacement – convert your lawn and get **$5 back per square foot** of grass removed.

For more information on available rebates, visit [www.socalwatersmart.com](http://www.socalwatersmart.com).

- For a Limited Time - Receive $5 Per Square Foot
- **Save Water & Money**
- **Live Well**

**MALIBU SMART**
PROJECT CASE STUDIES

Project Case Studies are a powerful and credible means to showcase success stories and motivate other customers to take action. Below are the four case studies used to demonstrate the significant water savings achieved by actual Project participants.

The Clarfields Saved a Whopping 385,000 Gallons of Water a Year

When Mitch and Chris Clarfield got a call from MALIBU SMART about reducing water use at their property, they said “Yes, help us.” So, we did.

One of our MALIBU SMART certified consultants went out to the Clarfield property – a challenging site to water due to significant slopes, multiple levels, a great variety of trees and plants, and various types of irrigation equipment. The consultant provided the Clarfields with easy-to-implement recommendations. Shortly thereafter, the MALIBU SMART team worked directly with Mitch and his gardener to put the plan into action including:

- Fixing numerous broken sprinkler heads
- Installing high efficiency sprinkler nozzles
- Installing smart irrigation timers

MALIBU SMART offers extensive rebates to customers who install high efficiency sprinklers or replace their lawns.

For more information and to schedule an assessment, please call 310-554-6210 or visit www.malibusmart.org.

Even better, the investment had a payback of less than one month. “Participation was seamless, MALIBU SMART was really very professional! We love the system automatically adjusts the watering based on local weather, including wind or rain events – the new technology is working great. We’ve been able to keep our lawn and it looks better than ever!” — The Clarfields

Customer Options

| OPTION 1 | Take advantage of FREE high efficiency sprinkler nozzles with FREE installation. It’s quick, easy, and—as we said—FREE! |
| OPTION 2 | For larger properties, take advantage of generous incentives for comprehensive sprinkler system upgrades. Get the newest technology and see significant savings all with a quick payback. |
| OPTION 3 | Replace your lawn with climate appropriate plants and efficient irrigation. Get $5 per square foot back while your landscape becomes drought and fire resilient. |

The O’Bryans Installed a New High Efficiency Sprinkler System and Reduced Their Water Bill by 25%!

Conserving water is important to Duross and Cyndi O’Bryan, but they didn’t know how to go about it. What’s more, they entertain outdoors regularly, so they wanted to keep their grass intact. Not to worry. By installing a new high efficiency irrigation system and smart timers, the O’Bryans have cut their water usage by 50% and they still have their full lawn.

The O’Bryans invited the MALIBU SMART team out to their home to assess the property and make recommendations for conserving water. It was an easy decision to move forward. The payback was attractive and the process was straightforward. They scheduled program contractor Valley Soils to come to their property and install:

- New pressure regulating sprinkler heads
- New high efficiency sprinkler nozzles
- New smart irrigation timers

MALIBU SMART offers extensive rebates to customers who install high efficiency sprinklers or replace their lawns.

For more information and to schedule an assessment, please call 310-554-6210 or visit www.malibusmart.org.

Even better, the investment had a payback of less than one month. “Participation was seamless. MALIBU SMART was timely and professional. Now the system automatically adjusts the watering based on local weather, including wind or rain events – the new technology is working great. We’ve been able to keep our lawn and it looks better than ever!” — The O’Bryans

Customer Options

| OPTION 1 | Take advantage of FREE high efficiency sprinkler nozzles with FREE installation. It’s quick, easy, and—as we said—FREE! |
| OPTION 2 | For larger properties, take advantage of generous incentives for comprehensive sprinkler system upgrades. Get the newest technology and see significant savings all with a quick payback. |
| OPTION 3 | Replace your lawn with climate appropriate plants and efficient irrigation. Get $5 per square foot back while your landscape becomes drought and fire resilient. |

MALIBU SMART offers extensive rebates to customers who install high efficiency sprinklers or replace their lawns.
With Generous Rebates, The Sarmientos Completely Transformed Their Landscape

“The MALIBU SMART Folks Did the Assessment, Installed the New Sprinkler Nozzles, Coordinated the Landscape Contractor and Did All the Paperwork. The Program is So Easy.”

“By making the recommended changes, we were able to transform our damaged landscape and make our whole property more inviting to family and friends.” — The Sarmientos

Ellen and Cesar Sarmiento didn’t hold back when they heard about the MALIBU SMART program. From high efficiency sprinklers to lawn replacement, they said yes to it all. And, after their landscape had burned in the Woosley Fire, the program helped them create a more inviting landscape that will help protect their property from fire damage in the future.

- Removed 6,400+ square feet of grass and replaced with native landscaping and fruit trees
- Installed new sprinkler heads, nozzles & drip irrigation
- Installed new smart irrigation timer
- Installed 100 gallon rain barrel

MALIBU SMART offers extensive rebates to customers who install high efficiency sprinklers or replace their lawns.

Customer Options

OPTION 1
Take advantage of FREE high efficiency sprinkler nozzles with FREE installation. It’s quick, easy, and—as we said—FREE!

OPTION 2
For larger properties, take advantage of generous incentives for comprehensive sprinkler system upgrades. Get the newest technology and see significant savings all with a quick payback.

OPTION 3
Replace your lawn with climate appropriate plants and efficient irrigation. Get $5 per square foot back while your landscape becomes drought and fire resilient.

Steven Sindell Installed a New High Efficiency Sprinkler System and Reduced His Water Bill by 65%!

Steven Sindell knew he was using too much water, but he didn’t know how much or what to do about it. Before, his lawn was either over or under watered – today the property looks great.

I’m so glad I did it. It was worth the small investment, and now I can better manage my water use. I don’t have one complaint — it saved me.” — Steven Sindell

Steven Sindell was happy when MALIBU SMART came out to his home, did a free assessment, and helped him put a plan into action that would conserve water, while improving the look of his property and saving money each month.

Steven says all he had to do was coordinate appointment times and now, his lawn has never looked better. Program Contractor, Valley Soil, installed:
- New pressure regulating sprinkler heads
- New high efficiency sprinkler nozzles
- New smart irrigation systems

MALIBU SMART offers extensive rebates to customers who install high efficiency sprinklers or replace their lawns.

Customer Options

OPTION 1
Take advantage of FREE high efficiency sprinkler nozzles with FREE installation. It’s quick, easy, and—as we said—FREE!

OPTION 2
For larger properties, take advantage of generous incentives for comprehensive sprinkler system upgrades. Get the newest technology and see significant savings all with a quick payback.

OPTION 3
Replace your lawn with climate appropriate plants and efficient irrigation. Get $5 per square foot back while your landscape becomes drought and fire resilient.
SOCIAL MEDIA

Social media was utilized as an additional means to reach customers. Posts on FaceBook, Instagram, and Nextdoor included water facts, technology overviews, Project rebates, and more.

Cutting-edge green technology
Provides real time data + tracks local weather
Determines when and how much to water
Manage your landscape from anywhere
Alerts you if there are issues with your system
And you can get an $80 rebate!

For a limited time – several valuable rebates are still available by visiting https://SoCalWaterSmart.com today:
- Turf Removal = $5 per square foot
- Smart Sprinkler Timers = $160 ea (double the original rebate)
- High-Efficiency Clothes Washer = $85
- Rain Barrels and Cisterns = $30 – $350
- Premium High Efficiency Toilets = $40
- High-Efficiency Sprinkler Nozzles = $2 per nozzle

For questions about the rebates listed above – or programs to create beautiful native landscaping – please contact us at 310-554-6210 or water@topangasmart.org

LATIMES.COM
Want to save energy and fight climate change? Try using less water

Nearly one-fifth of all electricity use in California goes to moving and treating water.
During the Project ads were designed to be more visual.

With more time spent at home, there's no better time to turn your backyard into an outdoor living space. Start saving now! Rebates are available for a limited time. For more information on rebates available, visit www.socalwatersmart.com.
Project Videos

To further promote the Project, videos were added, as well:

LIMITED TIMEFRAME MESSAGING

Advertising was created to market limited time incentives and increased incentives for smart controller devices.
DIRECT INSTALLATION OF SMART CONTROLLERS

Messaging was created to promote the free direct installation of smart controllers. This advertising was used in direct mail postcards and social media.

FREE SMART Sprinkler Timer + Installation

The Rachio timer will automatically customize a watering schedule for your yard, while enabling you to control your watering from your phone.

Get started today! Scan the QR code or visit: https://bit.ly/3rV50tY

FREE SMART Sprinkler Timer + Installation

The Clarfields saved an astounding 385,000 gallons of water a year.

Start saving water today!

The City of Malibu, West Basin Municipal Water District and the County of Los Angeles Public Works have teamed up to help Malibu and Topanga residents save water and money by providing FREE SMART sprinkler timers.

California Experiencing Record Drought

Help Your Community Save Water

The City of Malibu, West Basin Municipal Water District and the County of Los Angeles Public Works have teamed up to help Malibu and Topanga residents save water and money by providing FREE SMART sprinkler timers.

GET YOURS NOW

$500+ VALUE

GET YOURS NOW

$500+ VALUE

Get a FREE Smart Sprinkler Timer!
The grant for the Project was awarded in 2015 with a fully executed agreement in place by December of 2016. From early 2017 through April 2017, the Project partners worked to secure a consulting firm to administer the program, conduct marketing and outreach, and provide customer support services. RW Jones was the selected firm. RW Jones spent a year conducting an in-depth market analysis and program design culminating in the project launch in July of 2018.

Over the next two years, the project faced two crises that impacted the schedule: the Woolsey Fire and the Covid Pandemic. DWR granted a project extension through 2024.

The overall Project goals were achieved in spite of the schedule set back.
As with all first-of-a-kind Projects, at project completion there are take-aways and lessons learned. For the Malibu and Topanga Smart Project, the following observations were noted:

- The Project's prime water savings opportunities came from targeting the highest and most inefficient users of water. The Project successfully marketed to the Top Highest Water Consumers and exceeded the water savings goal. Utilization of this targeting strategy also aligns with the approach required in the State’s Framework Legislation: SB606 and AB1668.

- To attract participation, it is necessary to offer measures that customers value. With high end properties, customers were not interested in replacing their designer showerheads and toilets. Generally speaking, they preferred retrofits that did not alter the look of their properties such as smart meters and high efficiency nozzles.

- Landscape and irrigation retrofit projects can be lengthy and complicated. As such, customers require handholding and support services throughout in order to complete the process. Without strong customer support, there is a high customer abandonment level.

- Paying contractors directly can eliminate many barriers and engage the landscape industry to act as a Project partner in promoting the Project. Through direct contractor payment, cash flows increase, and customers do not need to act as intermediaries between Project administration and contractors.

- Many customers utilize contractors or onsite staff that are not licensed. Because of this, incentives could not be paid directly to these individuals or companies.

- Working with a trusted community member (in this case former Malibu Mayor, Laura Rosenthal) greatly boosted Project credibility with numerous homeowners, most likely increasing customer response.

- The direct installation Project design is well received by customers and overcomes many barriers when compared with the cumbersome standard rebate format.
COST AND DISPOSITION OF FUNDS

BUDGET: PROJECTIONS VS ACTUAL

The original Project budget for the Malibu and Topanga Smart Project was $1,539,260 for all funding partners. $1,059,260 from the grant and $480,000 as a funding match from the Project partners: West Basin MWD, LA County Waterworks, and the City of Malibu.

The entire budget was expended. The grant funds remained as projected. The actual customer response resulted in the addition of $1,476,203 for Smart Meter installations from LA County Waterworks. The total funds expended for the project was $2,829,103.

Table below, displays the final expenditures, broken down by the main grant funding categories, including administration, planning, monitoring, and construction. The chart shows the grant amount and funding match, as compared with the amounts expended.

<table>
<thead>
<tr>
<th>Category</th>
<th>Grant Amount</th>
<th>Funding Match</th>
<th>Total Budget</th>
<th>Grant Amount Expended</th>
<th>Funding Match Expended</th>
<th>Total Amount Expended</th>
</tr>
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<tbody>
<tr>
<td>Direct Project Administration</td>
<td></td>
<td></td>
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<td>Land Purchase/Easement</td>
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<td>Planning/Design/Engineering/Environmental Documentation</td>
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<td>Performance Monitoring Plan</td>
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<td>Construction/Implementation</td>
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<td>$1,059,260</td>
<td>$1,769,843</td>
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</tbody>
</table>
The funding match changed from 31% or $480,000 to 63% or $1,769,843.
### ORIGINAL MEASURE BUDGET

The following table lists the originally proposed measure quantities and budget line items by Project partner, showing an overall cost of $802,834.

<table>
<thead>
<tr>
<th>Components</th>
<th># of Hrs./ Units</th>
<th>Malibu Cost</th>
<th>MWD/West Basin Share</th>
<th>LACWW Cost Share</th>
<th>Total Cost Share</th>
<th>DWR Grant Cost</th>
<th>Total Cost</th>
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<tbody>
<tr>
<td>High Efficiency Clothes Water Rebates</td>
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<tr>
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<td>Outdoor Surveys</td>
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<td>$50,000</td>
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<td>$0</td>
<td>$50,250</td>
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<tr>
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<td>400</td>
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<td>$0</td>
<td>$8,500</td>
<td>$0</td>
<td>$0</td>
<td>$8,900</td>
</tr>
</tbody>
</table>

$2,000 $118,250 $258,500 $296,000 $425,184 $802,834
**UPDATED MEASURE BUDGET FOR REDESIGNED PROJECT**

As stated earlier, as the Project was redesigned to more effectively target the highest water use and better align with the community. The following table lists the updated budget showing measure quantities, partner shares, and line-item budgets. The partners provided more funding match than originally proposed due to additional smart water meter installations.

<table>
<thead>
<tr>
<th>Components</th>
<th>Units</th>
<th>Malibu Cost Share</th>
<th>MWD/West Basin Share</th>
<th>LACWW Cost Share</th>
<th>Total Cost Share</th>
<th>DWR Grant Cost</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Efficiency Clothes Water Rebates</td>
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<td>$4,250</td>
<td>$0</td>
<td>$4,250</td>
<td>$0</td>
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<td>High Efficiency Toilet Rebates</td>
<td>50</td>
<td>$0</td>
<td>$2,000</td>
<td>$0</td>
<td>$2,000</td>
<td>$0</td>
<td>$2,000</td>
</tr>
<tr>
<td>Rain Barrel Rebates</td>
<td>100</td>
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<td>$3,500</td>
<td>$0</td>
<td>$3,500</td>
<td>$0</td>
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<tr>
<td>Cistern Rebates</td>
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<td>$6,250</td>
<td>$0</td>
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<td>Turf Replacement Rebates</td>
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<td>$200,000</td>
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<td>$0</td>
<td>$0</td>
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<td>$120,000</td>
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<td>$98,280</td>
<td>$0</td>
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<td>$6,250</td>
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<td>$0</td>
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<td>$0</td>
<td>$50,000</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Installation of Smart Meters</td>
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<td>$0</td>
<td>$8,500</td>
<td>$0</td>
<td>$0</td>
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</tbody>
</table>

Total: $2,000 | $289,010 | $258,500 | $482,760 | $420,020 | $902,780
ACTUAL MEASURE EXPENDITURES

As stated earlier, the actual customer response resulted in the addition of $1,476,203 for smart meter installations from LA County Waterworks. The grant funding for measures remained as projected.

<table>
<thead>
<tr>
<th></th>
<th>Projected Cost</th>
<th>Actual Cost</th>
<th>Total Cost</th>
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<tr>
<td>Total Cost Share</td>
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<td></td>
<td>$802,834</td>
<td>$2,195,027</td>
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</table>
The following table lists the final measure quantities and expenditures based upon actual customer response:

<table>
<thead>
<tr>
<th>Components</th>
<th>Units</th>
<th>Malibu Cost Share</th>
<th>MWD/West Basin Share</th>
<th>LACWW Cost Share</th>
<th>Total Cost Share</th>
<th>DWR Grant Cost</th>
<th>Total Cost</th>
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<tbody>
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<td>Rain Barrel Rebates</td>
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<td>$900</td>
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<td>$900</td>
<td>$0</td>
<td>$900</td>
</tr>
<tr>
<td>Graywater Rebates</td>
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<td>$0</td>
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<td>$0</td>
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<tr>
<td>Turf Replacement Rebates</td>
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<td>Flow Sensors with Master Valves</td>
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<td>$530</td>
<td>$530</td>
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<tr>
<td>Indoor/Outdoor Surveys</td>
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</table>
PROJECT SCHEDULE

- Grant awarded: Sept, 2016
- Project planning initiated: March, 2017
- Project launch: July, 2018
- Woolsey fire project suspended: Nov, 2018
- Post-fire project relaunch: March, 2019
- COVID mandatory stay-at-home order: March, 2020
- Project suspended: Sept, 2020
- Began offering free smart time installations: Oct, 2021
- Project operations concluded: Aug, 2022
- Project Completion Report submitted: Dec, 2022
Conclusion

The State is in the process of implementing the most stringent water efficiency objectives ever seen in California—stemming from California’s State Framework Legislation passed in 2018.

With the challenges of the State Framework and the expectation of future drought cycles, agencies must look to new and innovative approaches to achieve heightened levels of water efficiency.

Despite the success of traditional agency rebate programs, on their own these programs may not be enough to meet the aggressive efficiency standard deadlines that are fast approaching.

The Malibu and Topanga Smart project offers a new design that reaches out to, and engages, high water use customers in a unique manner. As with any pilot project, the hope is for the forecasted goals to be met, or exceeded, by the actual results. With a sound design and the hard work of many program partners, the Project the desired outcomes.

Despite the challenges of the Woolsey Fire and the COVID pandemic, the Malibu and Topanga Smart Project not only met, but overachieved, the water savings goal by 11%.

As well, through implementation of this Project, the Partners gained valuable insight that can inform future endeavors. Knowledge gained through this pilot include the following observations:

- The direct installation design is well received by customers and overcomes many barriers.
- Targeting the highest and most inefficient users of water, as expected, produced the highest water savings.
- Customers require handholding and support services throughout the retrofit process to ultimately complete projects at their properties.
- Sharing case studies boosted Project participation.
- Leveraging trusted community members as influencers also improved participation.
- Collaborations, like the Malibu and Topanga Smart Program, can deliver more meaningful water and energy savings than traditional rebate programs.
Perhaps most significantly, the Malibu and Topanga Smart Project substantiates the power of the partnership. This collective funding design allows multiple agencies to “stack” rebates, achieving a more generous overall incentive that effectively drives the market.

The collaborative format also creates the opportunity for cross promotions between agencies and a greater depth of marketing coverage. With multiple agencies, all advertising the project, there is a greatly elevated level of customer awareness and activity.

Project Partners

Multiple agencies participated in the funding, administration, and/or implementation of the project, as shown below:

City of Malibu – Lead agency
LA County Waterworks – Project partner, AMI installations, and device funding
West Basin MWD – Project partner and device funding
Metropolitan Water District – Rebate funding and rebate program administrator
LA County Flood Control District – Grant administrator
Department of Water Resources – Grant funding