

This presentation premiered at WaterSmart Innovations

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IRWD – WaterSmart Software Pilot Study: Knowledge is Power...and Efficiency

WaterSmart Innovations 2013

Nathan Adams, Irvine Ranch Water District

Peter Yolles, WaterSmart Software



About Irvine Ranch Water District

Irvine Ranch Water District

Retail Water Agency Formed in 1961

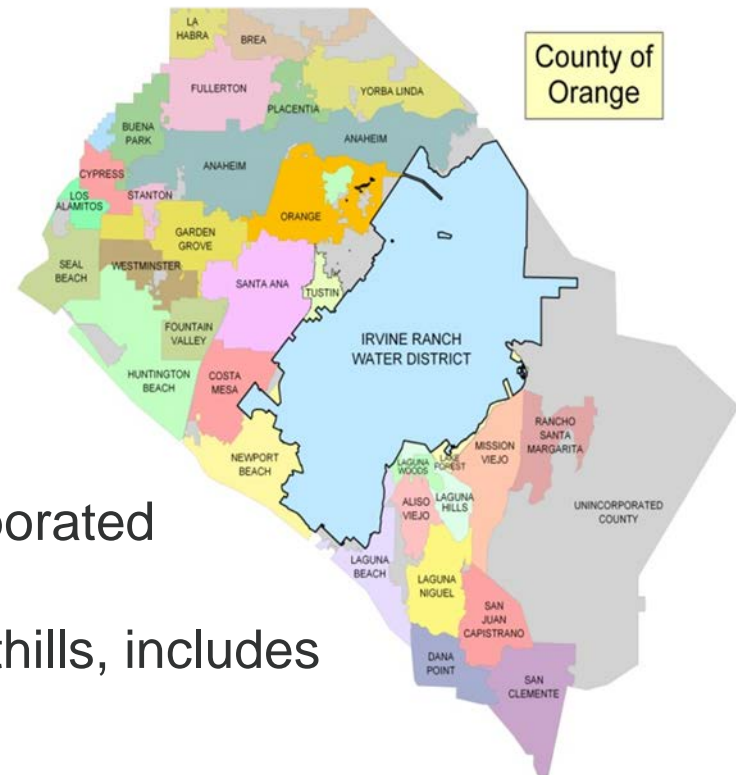
Independent California Special District governed by a five-member, publicly elected Board (four-year terms)

Current IRWD Customer Base

- Residential Population: 340,000
- Daytime Population: over 500,000
- Service Connections: 101,600

Size of District

- 181 square miles (469 square km)
- All or part of six cities and unincorporated Orange County
- From the Pacific Ocean to the Foothills, includes more than 20% of Orange County





IRWD Water Use Efficiency Plan

Irvine Ranch Water District

Portfolio Approach Including Research & Innovation





Information Based Efficiency

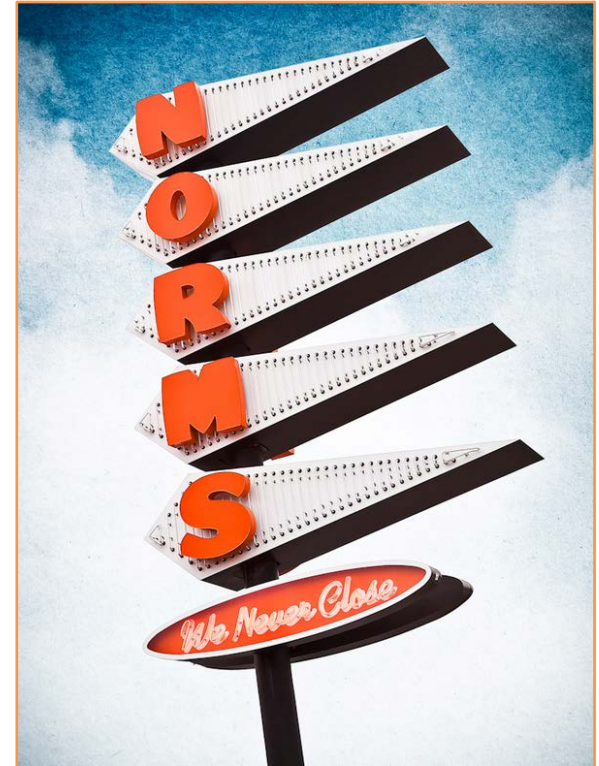
Irvine Ranch Water District

Tapping the Power of Information & Social Norms

Information



Increasingly, customers are expecting their utilities & services to provide information and smart control



IRWD Pilot Study:

Evaluate the effectiveness of providing enhanced water use information to customers to motivate and enable efficiency.



WaterSmart Pilot Study Overview

Irvine Ranch Water District

Goals are to Increase:

- Residential Water Use Efficiency
- Awareness & Engagement

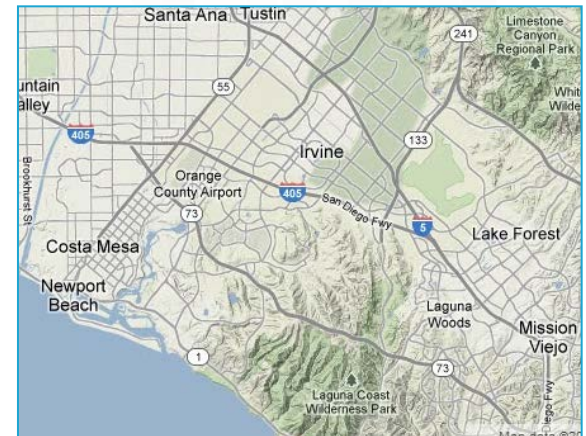
Strategy:

- Enhanced information in a consumer friendly



Partnership between IRWD and WaterSmart Software

- 1200 Homes, Random throughout IRWD
- June 2012 Survey, July 2012 Launch
- Year-long pilot study with evaluation

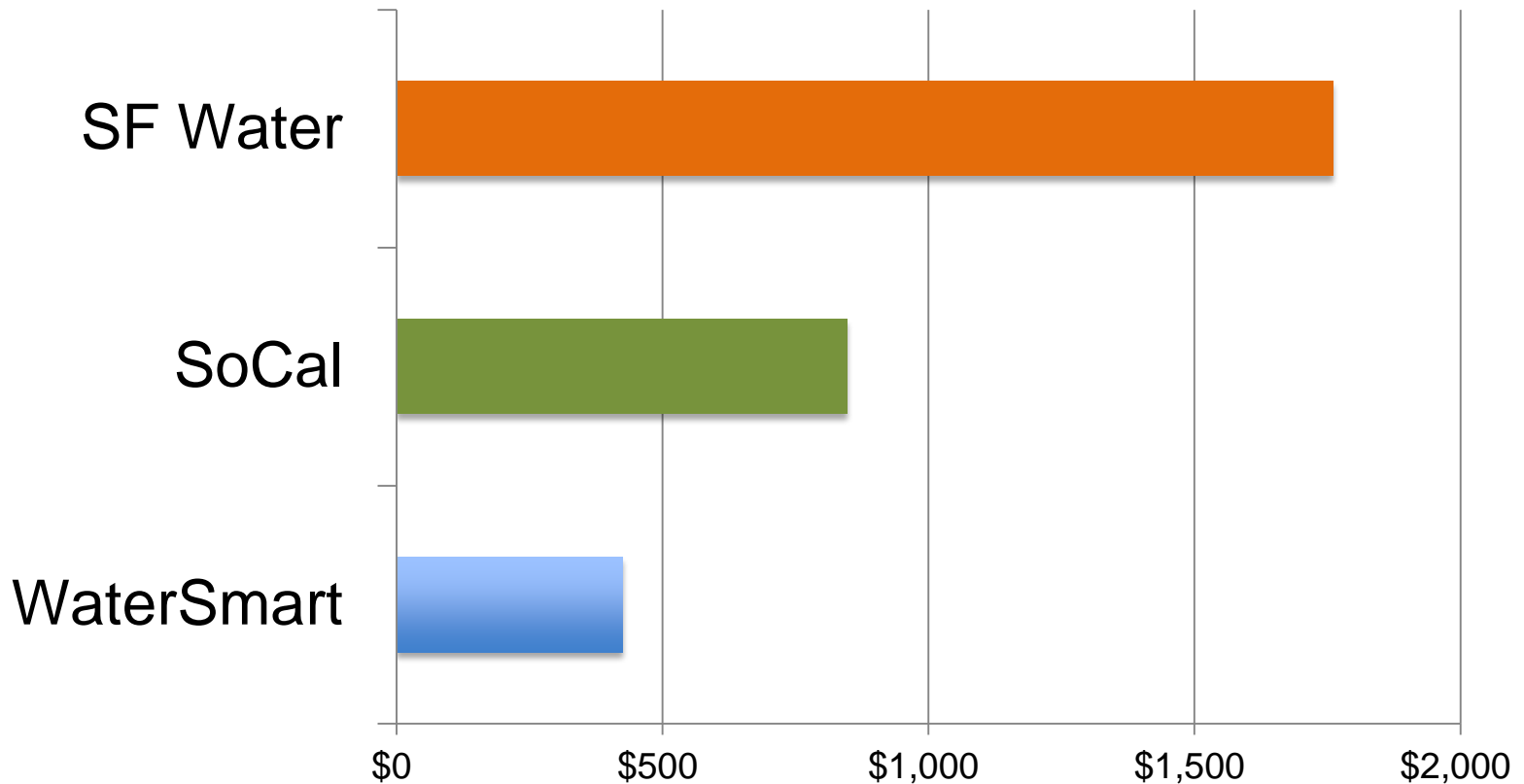




Why Conserve? Reason #1

Irvine Ranch Water District

Reduce OPEX: Saving Water is Cheaper than Buying Water or Building





Why Conserve? Reason #2

Irvine Ranch Water District

Reduce CAPEX: Delay, Downsize or Avoid New Water Supply Projects

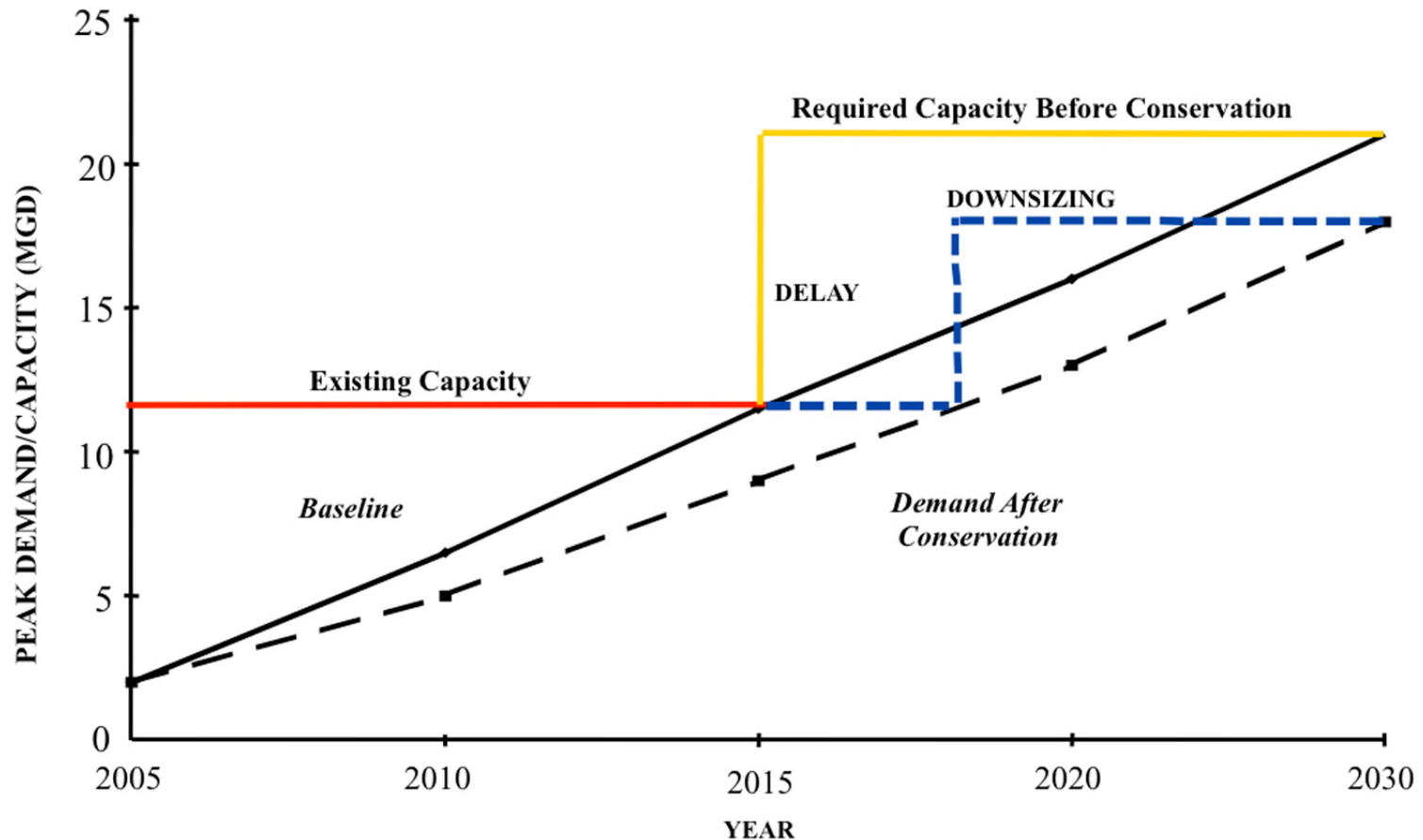


Chart Source: AWWA Manual M-52

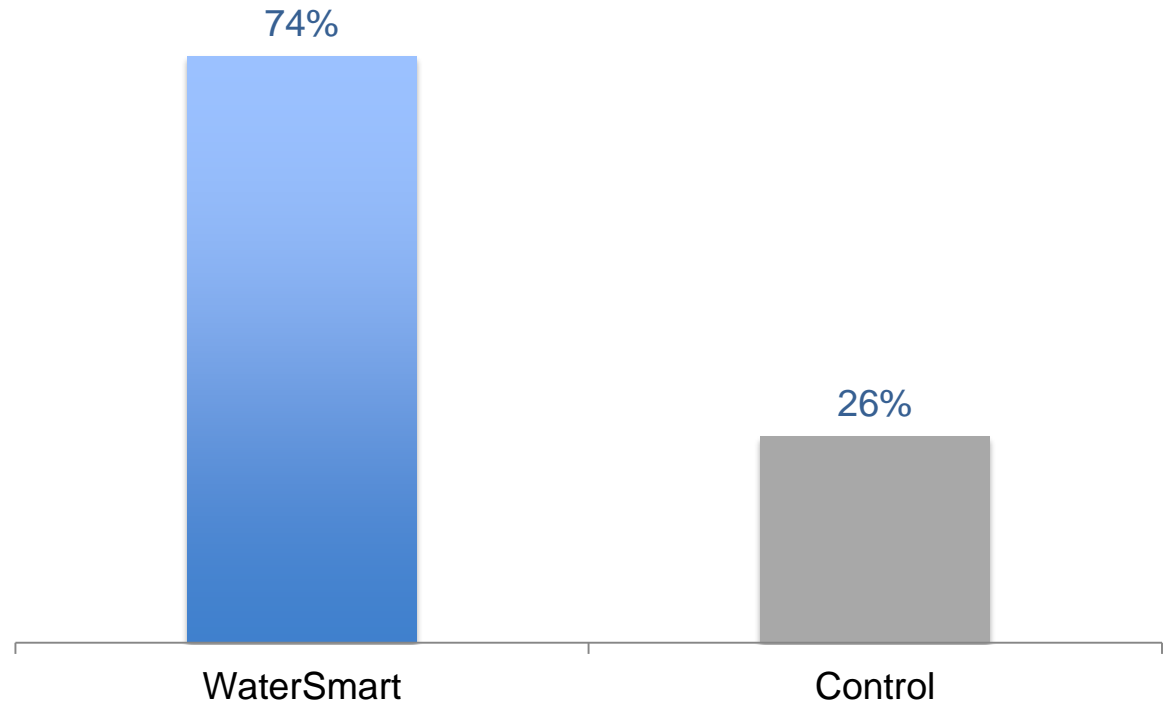


Why Conserve? Reason #3

Irvine Ranch Water District

Engage Your Customers Like Consumers...Not Ratepayers

3x
customer
engagement





Conservation Hurdle

Irvine Ranch Water District

Perception = Reality? Awareness is Crucial for Engagement

Does a customer's perceived use of water match their actual water use?



This affects customer behavior and should inform utility outreach!



WaterSmart Software Makes It Personal

Irvine Ranch Water District

How the Program Works

Data
Inputs

Water Meter &
Customer Data

Rebate &
Incentive
Programs

Demographic &
Real Estate Data

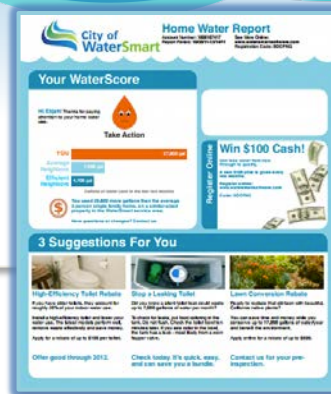
Survey
Responses &
User Information

WaterSmart Software
Cloud-Based Platform

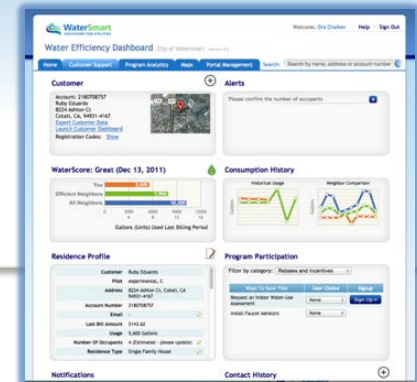
Outputs



Portal



Reports



Dashboard

Customer

Utility



What Residents Receive Automatically

Irvine Ranch Water District

City of WaterSmart
Home Water Report
Account Number: 1006167417
Report Period: 10/01/11-12/14/11
See More Online:
www.watermartsoftware.com
Registration Code: SOCFNG

Your WaterScore

Hi Elijah! Thanks for paying attention to your home water use.

Take Action

YOU 27,000 gal
Average Neighbors 7,000 gal
Efficient Neighbors 4,700 gal

Gallons of water used in the last two months

You used 20,000 more gallons than the average 2-person single family home, on a similar-sized property in the WaterSmart service area.

Have questions or changes? Contact us.

Win \$100 Cash!
Use less water from now through to quality.
A new \$100 prize is given every two months.
Register online:
www.watermartsoftware.com
Code: SOCFNG

3 Suggestions For You

High-Efficiency Toilet Rebate
If you have older toilets, they account for roughly 26% of your indoor water use.
Install a high-efficiency toilet and lower your water use. The latest models perform well, remove waste effectively and save money.
Apply for a rebate of up to \$100 per toilet.
Offer good through 2012.

Stop a Leaking Toilet
Did you know a silent toilet leak could waste up to 7,000 gallons of water per month?
To check for leaks, put food coloring in the tank. Do not flush. Check the toilet bowl ten minutes later. If you see color in the bowl, the tank has a leak - most likely from a worn flapper valve.
Check today. It's quick, easy, and can save you a bundle.

Lawn Conversion Rebate
Ready to replace that old lawn with beautiful, California native plants?
You can save time and money while you conserve up to 17,000 gallons of water a year and benefit the environment.
Apply online for a rebate of up to \$500.
Contact us for your pre-inspection.

Home Water Reports

- Water Consumption & Score
- Social “Neighbor” Comparisons
- Personalized Recommendations
- Program Promotions
- Targeted Messaging



WaterSmart Home Water Reports

Irvine Ranch Water District

Email or Print Reports

[See Full Report](#) | [Find Savings](#) | [Log In](#)


Home Water Report

Your WaterScore



Great

Robert, thanks for caring about your home water use. Keep up the great work!



Looking for ways to be more efficient with the water you use? See the offers below for specific things you can do right now to save water and money.

[See more details about your use >](#)

How You Compare

You	3,740 gal
Your IRWD Allocation	12,716 gal
Efficient Neighbors	2,992 gal

Gallons of water in the last month

[See more comparisons >](#)

- IRWD Allocation and/or Neighbor Comparison
- Targeted Messaging

“Alert: Kevin, your water use in March was higher than normal. Leak detection tips inside.”

“Robert, Don’t Go Over Allocation Like You Did Last Year: Reduce Your Watering to 40% of Peak



What Residents Choose to Access

Irvine Ranch Water District



Welcome, Jane
Settings -
Household -

Home

Track Usage

Ways To Save

My Actions

Comparing Your Use: June & July

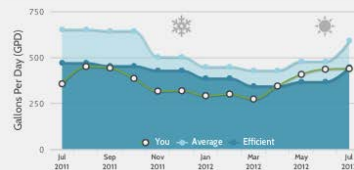


Compared to other homes with 5+ residents and a similar yard size.

Efficient use

Congratulations! You are among the most efficient water users in your community. Keep using water wisely!

Comparing Your Use: Last 12 Months



Seasonal use and irrigation

You use **more water** in the summer, most likely due to irrigation.

See [outdoor actions](#) you can take to reduce this summer use.

Breaking Down Your Use: Last 12 Months

Doesn't look right? Update your [household profile](#).



Watch your showers

Your **biggest use** is showers at 25%. The amount of water used by showering depends on how frequently you shower, how long each shower is, and how much water flows through your showerhead. Reducing any of those factors can lead to significant savings.

See [indoor actions](#).

Consumer Web Portal

- Historic Trend Analysis
- Targeted Recommendations
- Seasonal Use Comparison
- Estimated End Use
- Personalized Savings Plan
- Real-Time Use (if AMI)



Personalized & Relevant Analysis

Irvine Ranch Water District

Compare Your Use: December – January



CALscapes: Plants That Belong
Save up to 33 Gallons Per Day (GPD)

Recommended Water Saving Actions



CALscapes: Plants That Belong

+ Start action

Rebate!

33 ^{gpd}
\$20/year



Take a WaterSmart Shower

+ Start action

23 ^{gpd}
\$14/year

22 ^{gpd}
\$14/year

Rebate!

CALscapes: Plants That Belong

+ Start action

Save for later

I completed this

Not for me

Savings up to... 33 ^{gpd} \$20/year

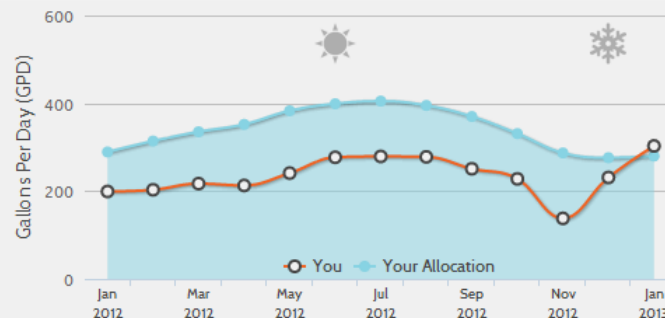


Did you know?...

Native plants are those that occur naturally in your region and therefore are perfectly suited to your climate and soil. They generally grow better, require less maintenance, and use less water, fertilizers and pesticides.

If your yard is covered with turf or grass, those species may not be native. By replacing your lawn with native species, you can reduce the amount of necessary

Comparing Your Use: Last 12 Months



Consistent year-round use

You use about the same amount of water in the summer as the winter. It looks like you may be irrigating your lawn year-round.

See outdoor actions you can take to reduce your use.



Visual Actions, Quantified Savings

Irvine Ranch Water District



Welcome, Jane

Settings ▾

Household ▾



 **Track Usage**

 **Ways To Save**


 **My Actions** 4

Recommended (6) Cash Back (0) Yard (11) Home (15) All (22)

Recommended Actions

The most effective water savings actions for your household based on your profile.

Irrigation Controller Rebate


 Get started

 Save



Savings up to... **97 gpd** **\$340/year**

Take a WaterSmart Shower

 Get started

 Save



Savings up to... **57 gpd** **\$198/year**

High-Efficiency Toilet Rebate

 Get started

 Save



Savings up to... **26 gpd** **\$93/year**

Raise Lawnmower Blades


 Get started

 Saved [undo](#)



Savings up to... **14 gpd** **\$50/year**

Brushing Teeth? Water Off!


 Get started

 Save



Savings up to... **9 gpd** **\$32/year**

Fill Your Bathtub 1/3 Full

 Get started

 Save



Savings up to... **5 gpd** **\$18/year**



Personalized Action Plan

Irvine Ranch Water District



Welcome, Jane

Settings ▾

Household ▾



Track Usage



Ways To Save



My Actions

4

Started

Saved

Completed (0)

Ignored (0)

Water saving actions you have started.



Mulch Under Shrubs, Bushes and...

Expert
Advice



Wash Your Car at Home Respon...

1  gpd
\$5/year



Clothes Washer Rebate

18  gpd
\$61/year



Hello Natives, Goodbye Grass

365  gpd
\$1274/year

Mulch Under Shrubs, Bushes and Trees

☒ I completed this

☐ Not for me

➔ Started on Oct 26, 2012. [undo](#)

A 2-3" layer of mulch around the base of shrubs, bushes and trees helps to:

- Retain soil moisture;
- Provide essential nutrients; and
- Reduce weed germination and growth.

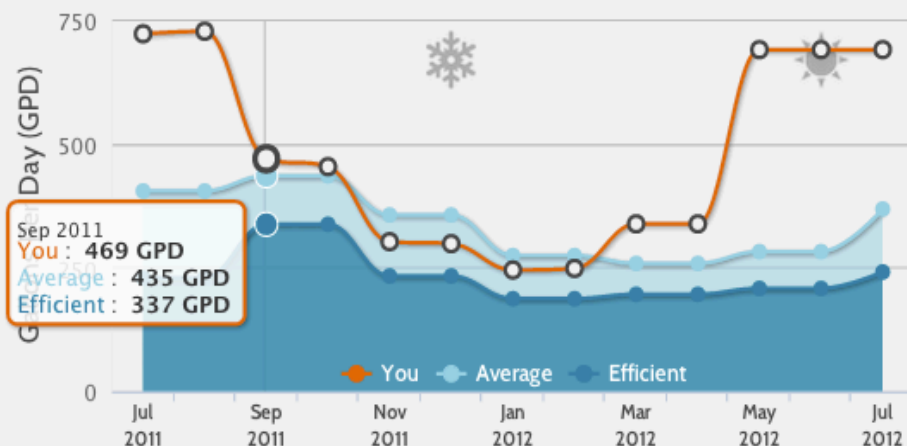
Remember to place mulch around your annuals, vegetable and flower gardens, too.



Tracking Usage: Seasonal and End Use

Irvine Ranch Water District

Comparing Your Use: Last 12 Months



Strong seasonal use

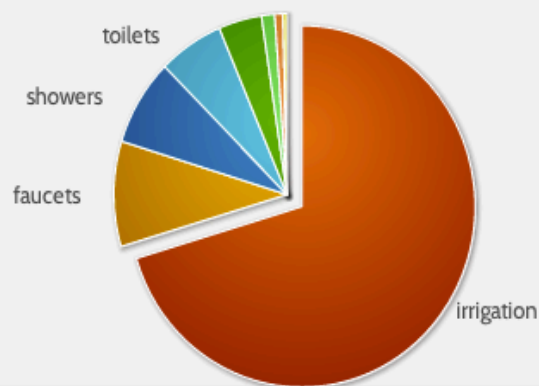
Seasons can have a strong effect on water use. You use **+155% more** when it's dry, likely due to outdoor watering.

Savings in summer

With high outdoor use, summer presents a great opportunity for savings.

Breaking Down Your Use: Last 12 Months

Estimated based on your [household profile](#).



Watch your irrigation

Your **biggest use** is irrigation at **70%**. The amount of water used by irrigation depends on climate, lot size, landscape, and your controller. Grass requires much more water than shrubs or plants, and a modern irrigation controller can help.

[See outdoor recommendations.](#)



Bridge to AMI

Irvine Ranch Water District

 **Home**

 **Track Usage**

 **Real-Time**

 **Ways To Save**

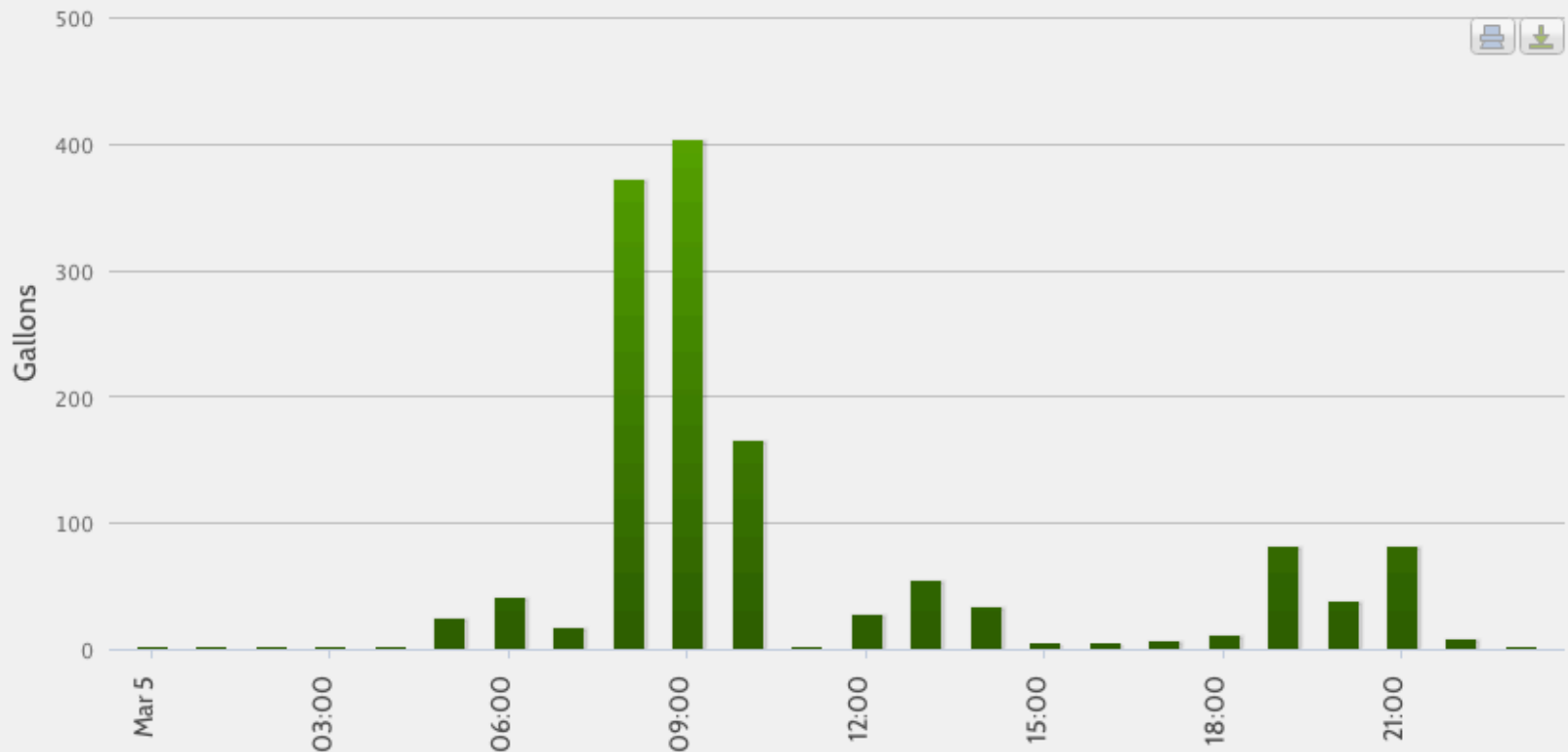
 **My Actions** ¹

Real-Time Usage

Date: 03/05/2013

Weekly

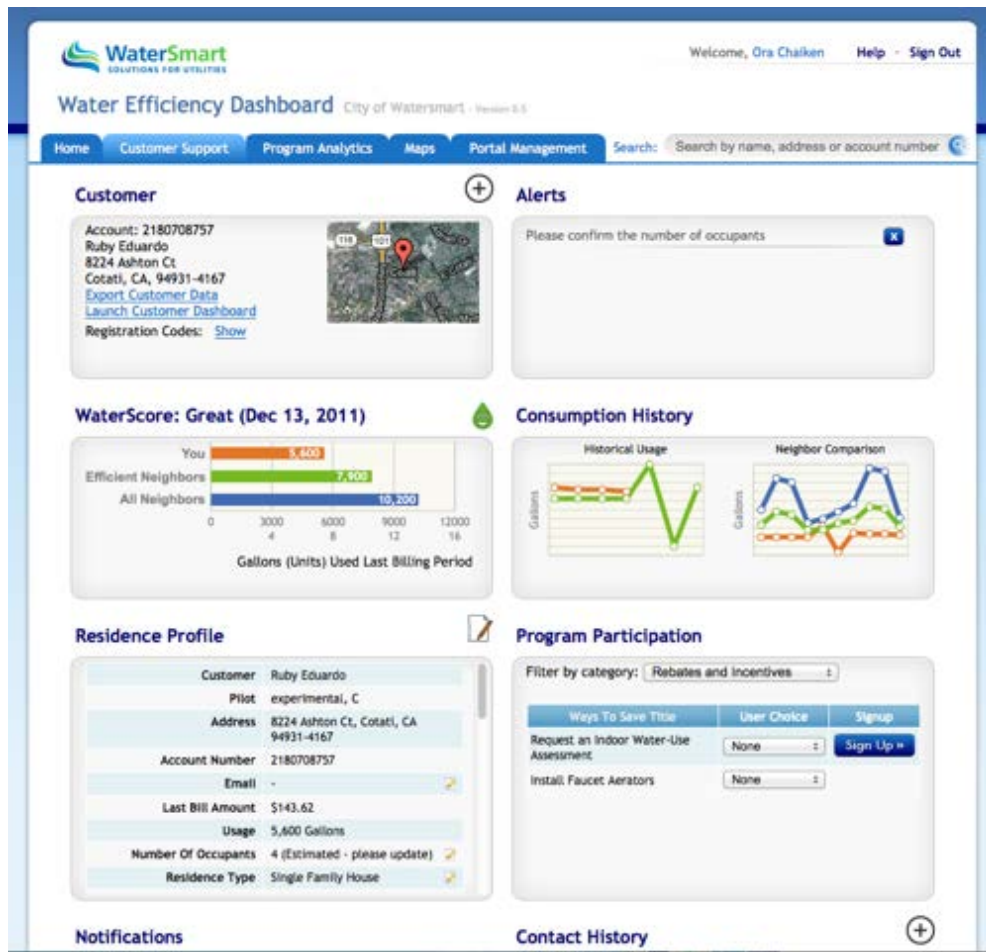
Monthly





Dashboard: How Utility Staff Monitors Progress

Irvine Ranch Water District



Water Efficiency Dashboard

- Customer Relationship Management
- Business Intelligence & Reporting Functions
- Program Management
- Water Use Analysis
- Feedback & Tracking
- Spatial Analysis
- Leak & High Use Alerts

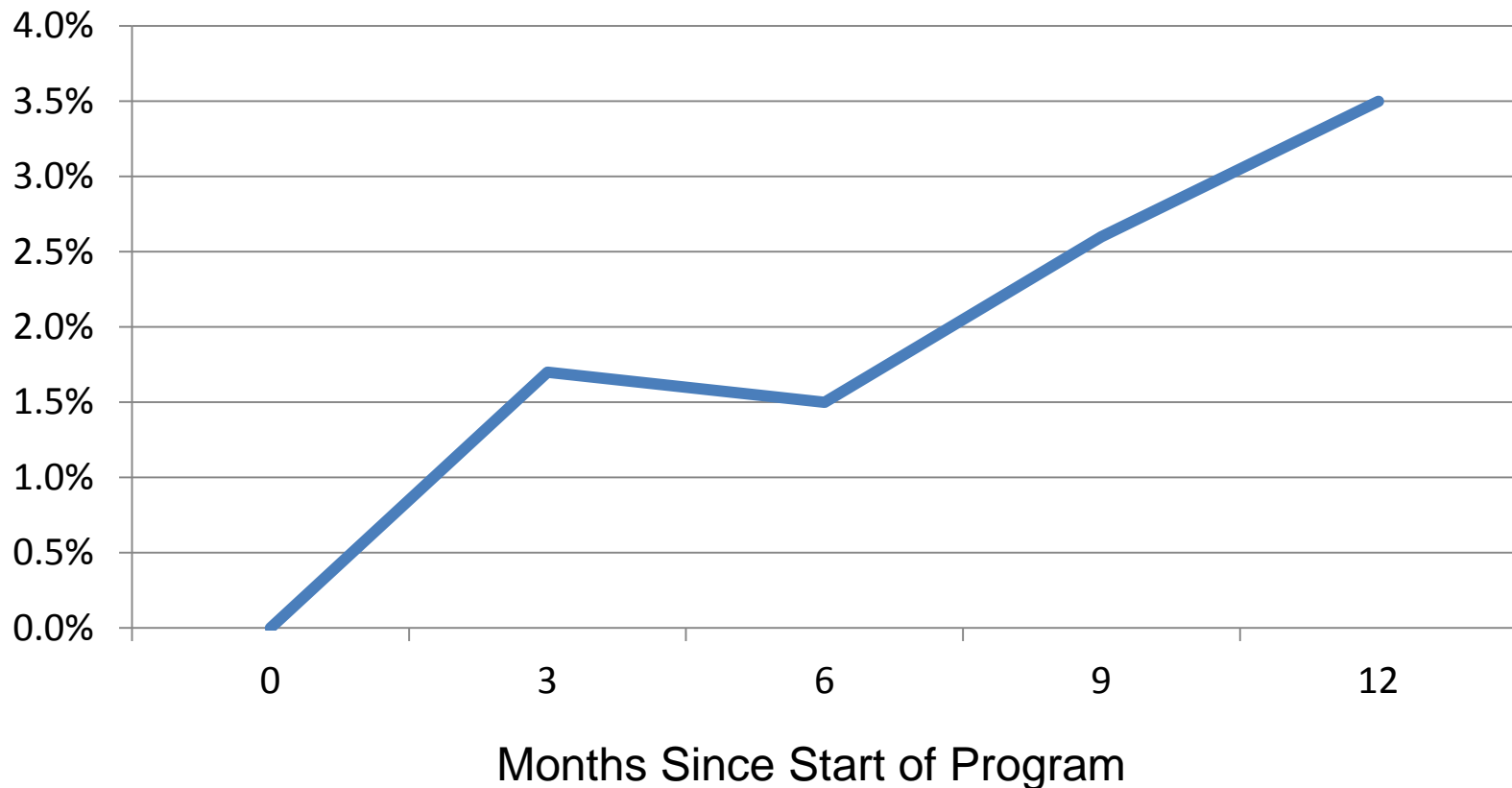


IRWD Pilot Conservation Gains

Irvine Ranch Water District

Cumulative Effect Over the Course of the IRWD Pilot Program

3.5%+ water savings



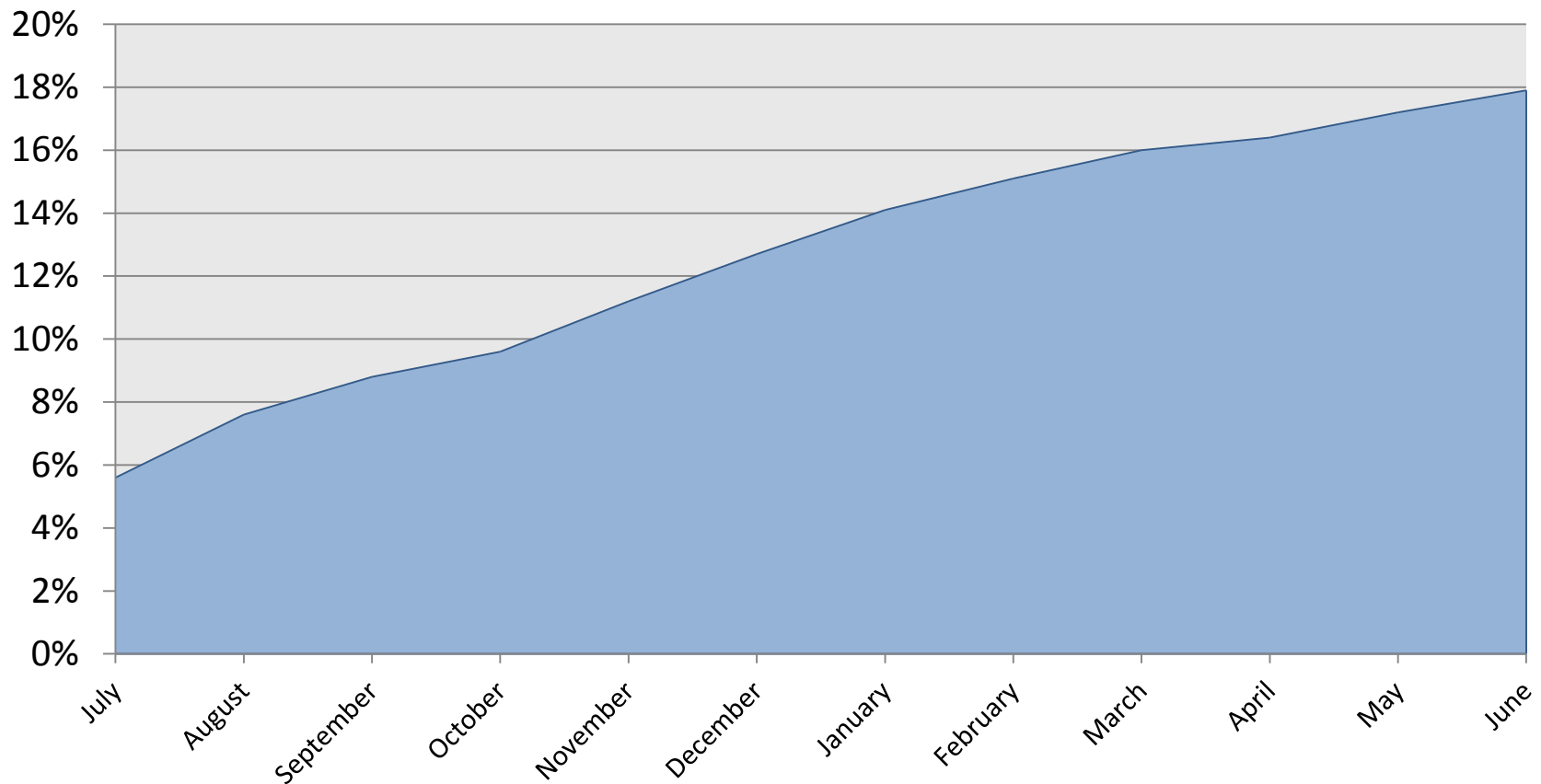


Engagement Is High

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Engagement in portal visits and email clicks is increasing steadily

Cumulative Engagement, by month

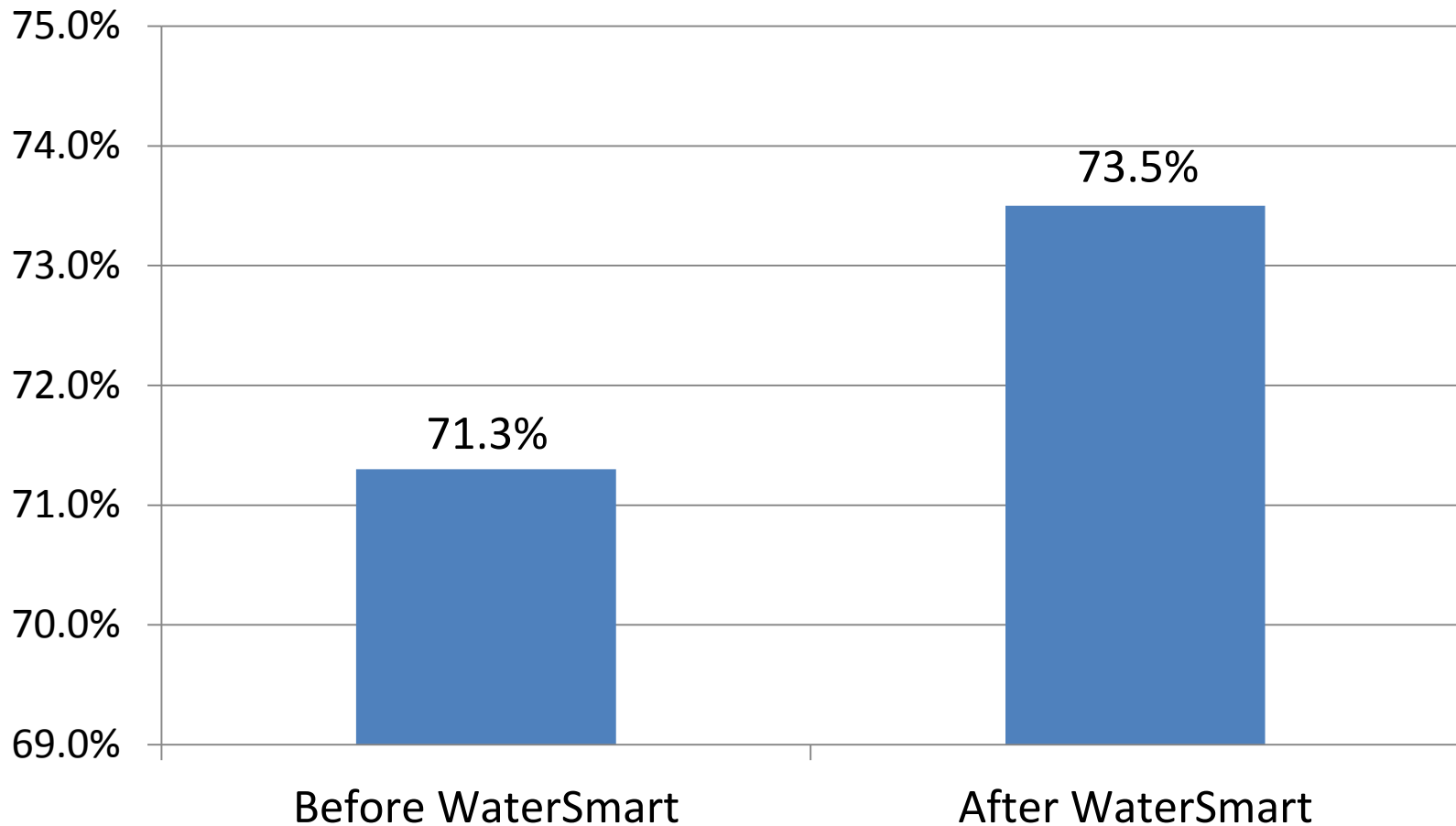




Fewer Homes in High Tiers

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Average Percent of Homes Within Their Water Allocation



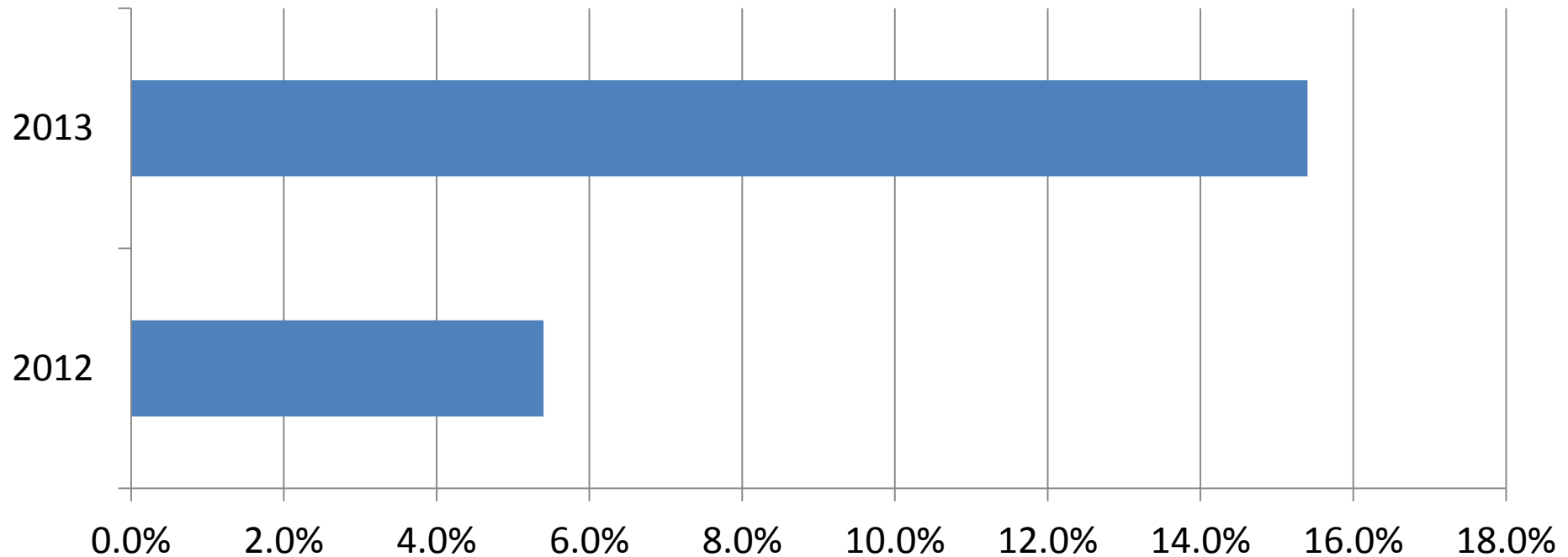


Increase in Water Awareness

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Perception better reflects Reality

Percent of Respondents Who Answered “More than Average”



Twice as many people are aware that their water use is higher than that of similar households.



Anecdotal Info is Good

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User Feedback Identifies Actions and Opportunities:

“I just fixed a leaking toilet and now I’ll wait for next month’s Home Water Report and see how I’m doing.” – H.D.

“Your report prompted me to set up a meeting with your staff to monitor inside and outside water usage.” - B. M.

“Knowing what your neighbors use is a very powerful tool.” - B.D.

“We’re already pretty conservative, except for our lawn. I looked into WBICs, but there are too many choices and not enough guidance” - J.O.

“We irrigate before we wake up, so we didn’t notice we were overwatering. Your report made me realize my use had gone up.” - D.P.



Thank You

Irvine Ranch Water District

Contact us

Nathan Adams
Water Use Efficiency Analyst
Irvine Ranch Water District
949-453-5633
adams@irwd.com

Peter Yolles
CEO & Founder
WaterSmart Software
415-789-6061
peter@WaterSmartSoftware.com

Demos available at Booth 306