

This presentation premiered at WaterSmart Innovations

watersmartinnovations.com



Results are In:

Water Smart Allocation and Tiered Rates Program

2014 Water Smart Innovations

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Valencia Water Company



Purpose of Presentation

- About Valencia Water Company
- About the Water Smart Allocation and Tiered Rates Program
- Conservation Rate Design and Implementation for Multiple Customer Classes
- Water**SMART** in Action
- Results: Customer Acceptance
- Results: Water Use Trends
- Lessons Learned and Next Steps



Valencia Water Company

- **Investor Owned Utility**
- **Location** – Northern Los Angeles County
- **Population** – Approximately 117,000
- **Annual Sales** – 9.7 Billion Gallons
- **Memberships Include** – WaterSense Promotional Partner, Alliance for Water Efficiency, California Urban Water Conservation Council



About the Water Smart Allocation and Tiered Rates Program



Defining “Water Allocations”

Often referred to as “Water Budgets”, Water**SMART** Allocations identify and establish water use baselines for customers using customized and site specific water use assessments.

~ Components Include ~

1

Indoor Allocation – Based on 55 gallons per person per day for 4 people for a given billing period (Variances available for additional persons).

2

Outdoor Allocation – Uses publicly available aerial imagery and GIS software to measure each residential customer’s landscaped area and includes varying monthly Evapotranspiration needs required to keep plants happy and healthy (ET from Santa Clarita Valley CIMIS Station 204).

3

Tiered Rates – Once the allocation has been established, the WaterSMART Program uses tiered rates to reward and encourage water use efficiency by providing increasing economic price signals to discourage the inefficient, excessive, and wasteful use of water.

4

Conservation Choices – Customers who find themselves in the “Inefficient, Excessive, or Wasteful” ranges can reduce their water use, and water costs, by taking a few simple steps to bring water use down or through participating in one of Valencia Water Company’s Conservation Programs.

Goals for Conservation Rate Design

- Achieves Revenue Neutrality
- Is Consistent with “Cost of Service” Principles
- Stimulates Water Conservation
- Increases Consumer Education
- Avoids Rate Shock
- Is Socially Acceptable



Conservation Rate Design Implementation Plan

- **Phase I – 2011 Residential**
- **Phase II – 2012 Dedicated Irrigation Meters**
- Phase III – 2016 Multi-Family Residential and Public Authority
- Phase IV – 20?? Commercial/Industrial/Institutional



Conservation Rate Design and Implementation for Multiple Customer



Phase I – Water**SMART** for Residential Customers



Residential WSA Program (2011)

- **Tier 1 - Indoor Allocation**
- **Tier 2 – Outdoor**
(Customer's Allocation)
- **Tier 3 – 101-150%**
- **Tier 4 – 151 – 200%**
- **Tier 5 - >200%**



Indoor Allocation



$$= \begin{array}{c} 220 \text{ Gallons/Day} \\ \text{or} \\ .285 \text{ CCF/Day} \\ \text{(Typical Month = 6500 Gals. Or 9 CCF)} \end{array}$$

Outdoor Allocation



Residential Landscaped Areas =

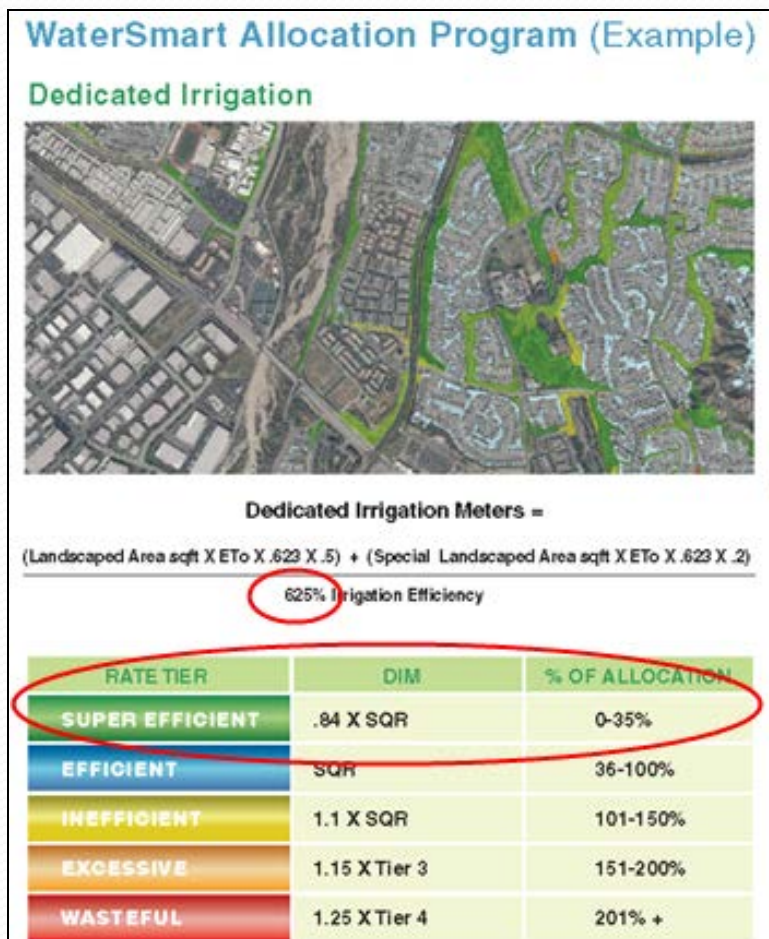
$$\frac{(2500\text{sqft} \times \text{ETo} \times .623 \times .7) + (7500\text{sqft} \times \text{ETo} \times .623 \times .5)}{.71\% \text{ Irrigation Efficiency}}$$

Phase II – Water**SMART** for Dedicated Irrigation Metered Customers

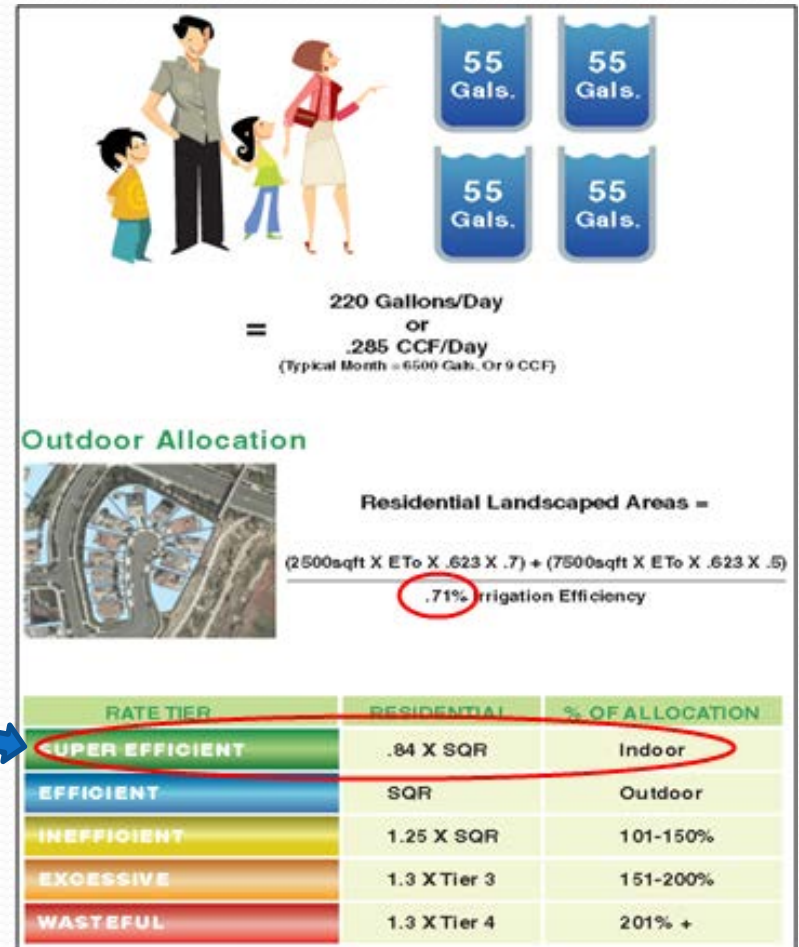


WaterSMART for Dedicated Irrigation (2012)

Metered Customers



Vs.



Dedicated Irrigation Meter Program

Residential Program

WaterSmart in Action



WaterSMART In Action

Residential



Valencia Water Company

Dedicated Irrigation

WaterSmart Allocation Program (Example)

Indoor Allocation



220 Gals./Day
or
285 CC/Day
(7 days/week x 40 Gals./cc x 400)

Outdoor Allocation



Residential Landscaped Area =

$(2000\text{ sq ft} \times 0.25 \times 2) + (2000\text{ sq ft} \times 0.25 \times 2) =$
2160 Gals./Day

PLATE TIER	RESIDENTIAL	% OF ALLOCATION
EXPOSED SPRINKLER	24 X 60%	Indoor
SPRINKLER	60%	Outdoor
SPRINKLER	1.25 X 60%	101-150%
SPRINKLER	1.2 X Tier 2	151-200%
WASTEWATER	1.2 X Tier 4	201% +

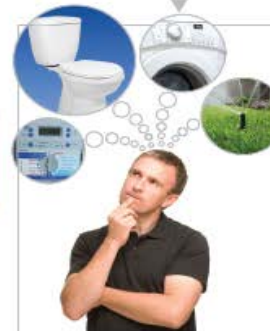


Residential
Indoor/Outdoor

Dedicated
Irrigation



Water SMART
Allocation Program



Just think how much you could save!

WaterSmart Allocation Program (Example)

Dedicated Irrigation



Dedicated Irrigation Meters =

$(\text{Landscaped Area (sq ft)} \times 0.25 \times 2) + (\text{Residential Landscaped Area (sq ft)} \times 0.25 \times 2)$
Fixed Irrigation Billing

PLATE TIER	DIM	% OF ALLOCATION
EXPOSED SPRINKLER	24 X 60%	0-25%
SPRINKLER	60%	26-100%
SPRINKLER	1.1 X 60%	101-150%
SPRINKLER	1.15 X Tier 2	151-200%
WASTEWATER	1.25 X Tier 4	201% +

WaterSMART in Action



Valencia Water Company
24631 Avenue Rockefeller
Valencia, CA 91355
Call or Pay by Phone: (661) 294-0828

Account Number
Total Amount Due \$ 44.30
Current Charges Due 04/06/2011

Manage and pay your account at valenciawater.com

Bill Period 02/28/2011 - 03/30/2011
Name MARY CUSTOMER
Location Address
Days This Period 29
Invoice Date 03/16/2011
Invoice # 01835098
Cycle 777

General Water Usage Detail

Rate Tier	% Of Allocation	Price Per/Unit	Billed Usage	Cost of Usage
Super Efficient	100% of Indoor	1.144	9.00	\$ 10.30
Efficient	100% of Outdoor	1.362	15.00	\$ 20.43
Inefficient	101-150%	1.703	0.00	\$ 0.00
Excessive	151-200%	2.214	0.00	\$ 0.00
Wasteful	Over 200%	2.878	0.00	\$ 0.00
Total: General Water Usage Charge		24.00	\$ 30.73	

Recent Activity

Prior Balance	\$ 317.20
Payments	-317.20
Balance Forward	\$ 0.00

Current Charges

3/4 INCH RES METER	13.72
GENERAL WTR USAGE CHARGE	30.73
BAL ACCT SRCHG (\$.009/CCF)	0.22
WTR QLTY SURCREDIT	-1.06
LIRA SURCHARGE	0.04
PUC SURCHARGE	0.65

Total Current Charges

Balance Forward	Current Charges	Current Charges Due	Total Amount Due
\$0.00	\$44.30	04/06/11	\$ 44.30

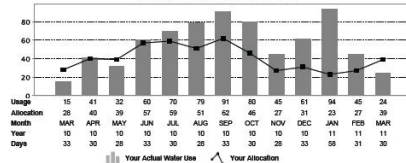
Meter Prior Read Current Read Current Usage
2656318 621 645 24

Units	Indoor Allocation	(1)Outdoor Allocation	Total Allocation	Total Usage	Last Year Usage
CCF	9	30	39	15	15
Gallons	6,732	22,440	29,172	17,952	11,220

Your Water Use Was: Efficient Gallons Used per Day: 619

Assigned Landscaped Area in SF 8,533

YOUR WATER USAGE HISTORY IN CCF



(1) Outdoor irrigation allocations are calculated using local real-time weather and your assigned landscaped area. For a complete explanation go to www.valenciawater.com/conservation/wsfqa.asp or call us at 661-294-0828.

Important Messages

Please be advised that as of February 1, 2011 our water usage rates and our monthly service charges have increased in accordance with our last general rate case. Tier rates are now in effect and shown in the General Water Usage Detail above. If your billing period overlaps the effective date of the rate change, only the period and usage after the effective date is assessed at the new rates and will show in this detail. The rest of your usage was prior to the effective date, so it will be itemized in Current Charges as POTABLE RATE and PURCH WTR SRCHG. This is referred to as prorating the monthly bill. For more detailed information on the new rates, surcredits and charges, please visit us at valenciawater.com.

Go Green with paperless e-billing service and sign up for recurring Direct Payment at valenciawater.com



Valencia Water Company
24631 Avenue Rockefeller
Valencia, CA 91355
(661) 294-0828

Payment Coupon

Account Number 15792300
Invoice Date 03/16/2011
Location Address
Current Billing Period 02/28/2011 - 03/30/2011

Balance Forward	Current Charges Due	Current Charges Due	Total Balance Due
\$0.00	04/06/2011	\$44.30	\$44.30
Amount Paid			

Valencia Water Company
PO Box 515106
Los Angeles, CA 90051-5106

00001579230000000000004430000044304

General Water Usage Detail

Rate Tier	% Of Allocation	Price Per/Unit	Billed Usage	Cost of Usage
Super Efficient	100% of Indoor	1.144	9.00	\$ 10.30
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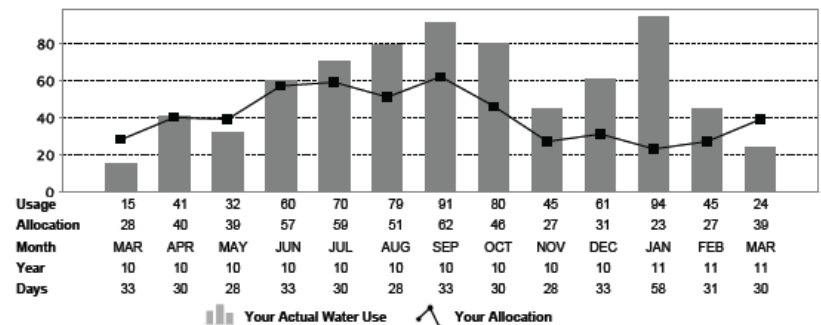
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Your Water Use Was: Efficient

Gallons Used per Day: 619

Assigned Landscaped Area in SF 8,533

YOUR WATER USAGE HISTORY IN CCF



WaterSMART in Action



Valencia Water Company

Online Services 

Conserve Water. It's for Life.

Welcome, g t | [Log Out](#)

Water SMART Allocation

Account Number Select a utility account to view details
1-8828.300: 23134 CALVELLO DR, VALENCIA, CA 91354

Customer Name LARRY F PAINE

Your Water Use...



Super Efficient: 0-40%
Efficient: 41-100%
Inefficient: 101-150%
Excessive: 151-200%
Wasteful: +201%

Your allocation varies by month, depending on the season, rainfall and other factors.

[View Historical Allocation Details](#)

The "Efficient" category represents a smart use of water, at or slightly below your allocation amount; 41 to 100% of your allocation this period. You use the normal and appropriate amount of water for your needs. To maintain this level, remain observant and react to changing weather.

The **Water SMART** allocation program is an easy way to monitor your monthly water usage and to make adjustments as necessary. The **efficient** category represents the normal amount of water your household should have used, both indoors and outdoors, for the given billing period.

If you find your usage exceeds this level, click on the "Conservation Tips" or "Allocation FAQ's" on the left to find easy ways to be more efficient with this precious resource.

Your Water SMART Allocation

Current Bill Date: 09/16/2009 Values displayed in: Gallons [Display as CCF's](#)

Your Water Use is:	Efficient	% of Allocations	77
Total Allocation	26,096	Actual Use	20,196
<small>Indoor + Outdoor = Total</small>			
Indoor Allocation	6,410	Outdoor Allocation	19,685

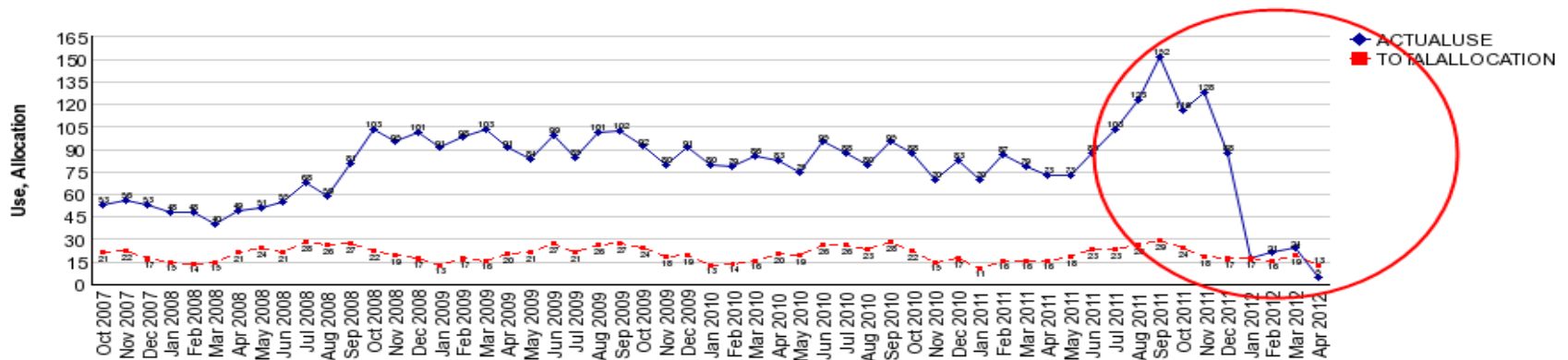
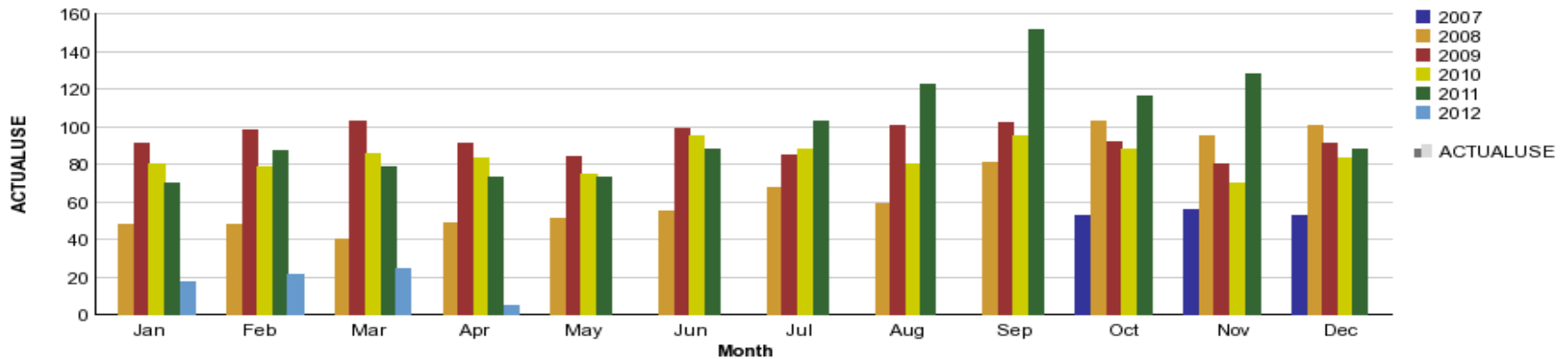
UNDERSTANDING WATER ALLOCATIONS

The Valencia Water Co. **Water SMART** program is a fair and equitable method of providing residents a water allocation calculated on their needs. Allocations are designed to promote **water efficiency** and to discourage customers from wasting water. To learn more about water allocations. [Click Here](#)

WATER SAVING TIPS

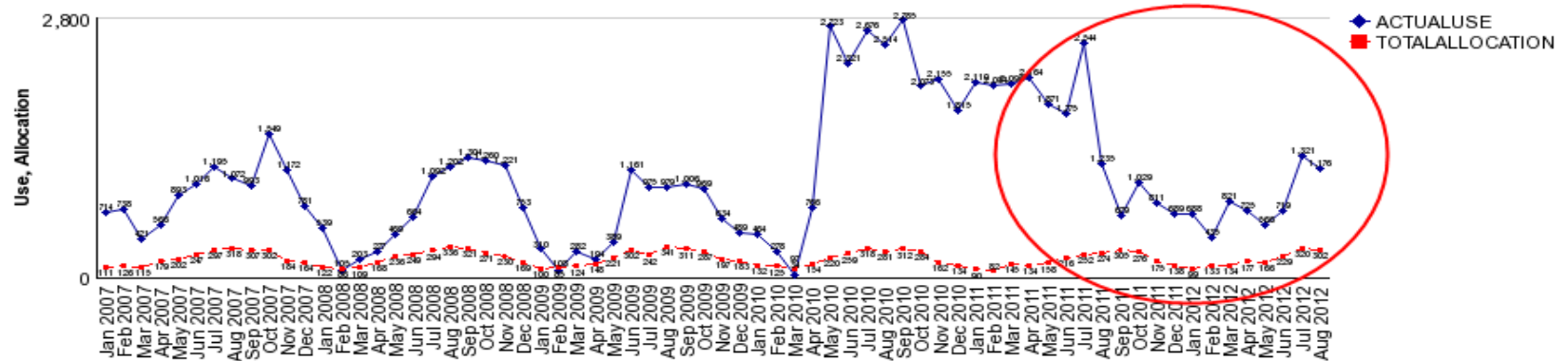
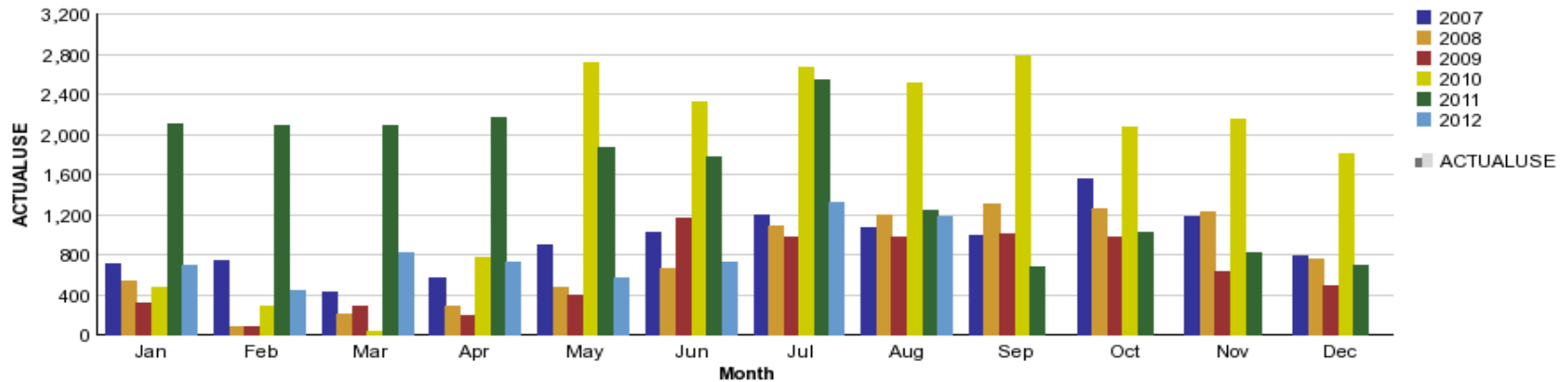
The Water SMART program features many tools and information to help Valencia Water Co. customers become more water efficient. [Click Here](#) to learn how to take some easy steps to save water without sacrificing your lifestyle.

WaterSMART In Action



89,000 Gallons Saved Per Month!!!

WaterSMART in Action



Over 35,000,000 Gallons Saved Since August 2011!!!

Results =
Customer Acceptance



Customer Acceptance (Indoor Variance Requests)

	2011	2012	2013
Indoor Variance (1-2)	41	58	47
Indoor Variance (>2)	6	18	15
Indoor Variance (Medical)	2	1	2
Indoor Variance (Other)	5	0	0
Total	54	77	64

Customer Acceptance (Outdoor Variance Requests)

	2010	2011	2012	2013
Outdoor Variance Request	15	38	26	9
Fire Control	0	0	0	0
Erosion Control	0	0	0	0
Admin. Variance	0	70	41	1
Total	15	108	67	10

Customer Acceptance (Customer Inquiries)

	2010	2011	2012	2013
General Inquiry	45	360	452	424
Tier Names Complaints	0	2	4	1
Tier Rates Complaints	0	1	0	0
Formal Complaints	0	0	1	0
Total	45	363	457	425

Customer Acceptance (Focused Outreach)

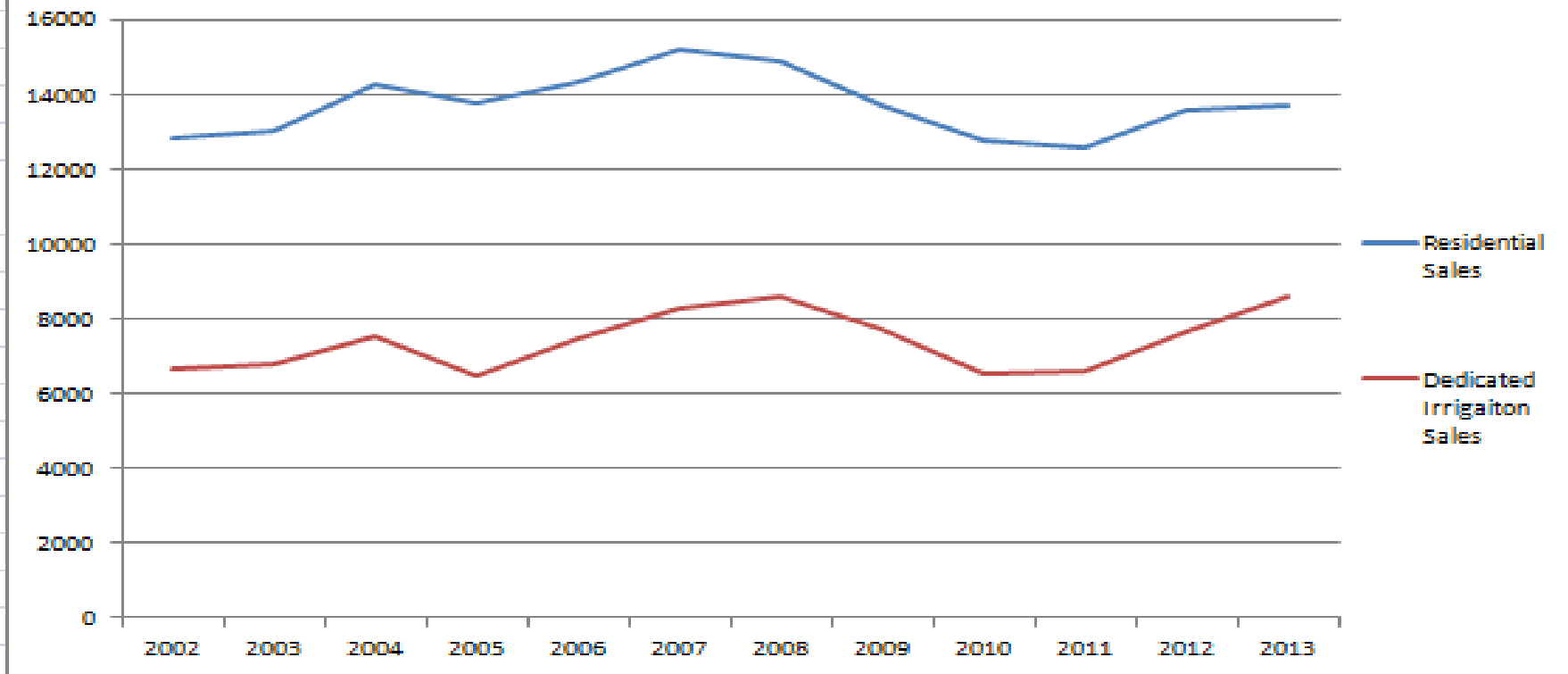
	2010	2011	2012	2013
High Consumption Letter	0	416	6382	5278
Total Residential Accounts	25,518	25,672	25,859	26,198
Percent Receiving HCLS	NA	.14%	2.0%	1.7%
Residential Survey Requests	238	263	850	490

Results = Water Use Trends

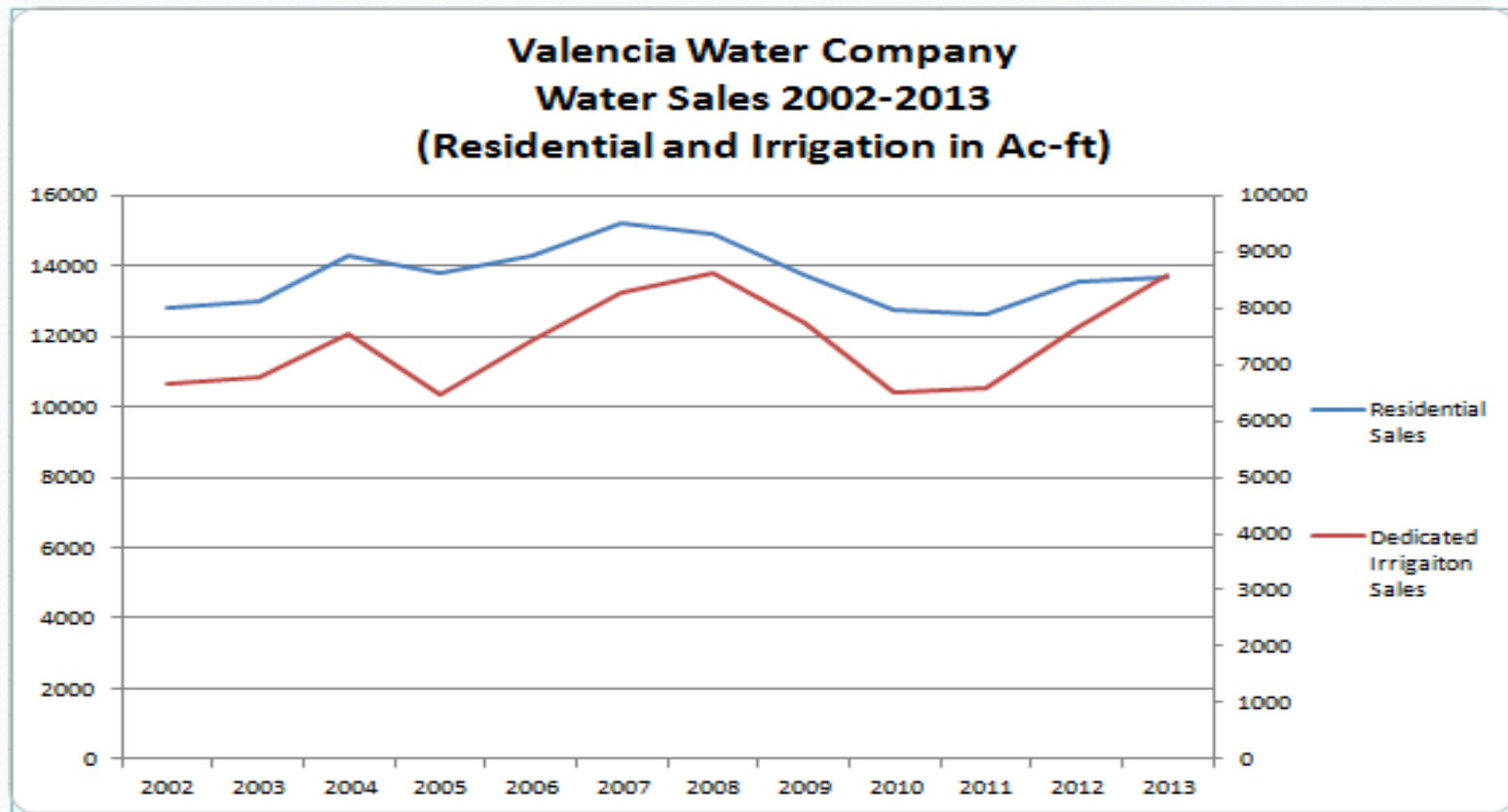


Water Use Trends

**Valencia Water Company
Water Sales 2002-2013
(Residential and Irrigation in Ac-ft)**



Water Use Trends



Estimated Water Savings (Residential) = 73.96 ac-ft (2011), 1184.2 ac-ft (2012), 2880.77 ac-ft (2013)
Total Estimated Water Savings= 4138.93 Ac-ft

1.348 Billion Gallons = 10.3%

Lessons Learned and Next Steps



Lessons Learned and Next Steps

Lessons Learned

- **Indoor Allocation Estimates** (Homes with less than 4 people)
- **Terminology Discrepancies/Mixed Messages** (Is efficient really efficient?)
- **Drought Preparedness** (Using actual weather to calculate irrigation when water needs are more likely to increase, when 20% reductions are requested)

Next Steps

- **Expand Coverage** (Additional customer classes)
- **Increase Contact** (Dedicated irrigation customers)
- **Continued Education** (Consumers want more info)

Questions?

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Thank You!!!

