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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Resource Conservation Manager
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
- WaterSMART 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”, WaterSMART 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 – WaterSMART 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%

![Diagram showing Residential WSA Program allocations]

- **Indoor Allocation**
  - 55 Gals.
  - 55 Gals.

- **Outdoor Allocation**
  - 55 Gals.
  - 55 Gals.

\[
\text{220 Gallons/Day} \quad \text{or} \quad \text{.285 CCF/Day}
\]

(Typical Month = 6500 Gals. Or 9 CCF)

\[
\text{Residential Landscaped Areas} = (2500\text{sqft} \times ETo \times .623 \times .7) + (7500\text{sqft} \times ETo \times .623 \times .5)
\]

.71% Irrigation Efficiency
Phase II – WaterSMART for Dedicated Irrigation Metered Customers
WaterSMART for Dedicated Irrigation (2012) Metered Customers

Dedicated Irrigation Meter Program

vs.

Residential Program

Outdoor Allocation

Residential Landscaped Areas =

220 Gallons/Day
or
.285 CCF/Day
(Typical Month = 6600 Gals. Or 9 CCF)

Dedicated Irrigation Meters =

(Landscaped Area sqft X ETo X .629 X .5) + (Special Landscaped Area sqft X ETo X .629 X .2)

625% Irrigation Efficiency

<table>
<thead>
<tr>
<th>RATE TIER</th>
<th>DIM</th>
<th>% OF ALLOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUPER EFFICIENT</td>
<td>.84 X SQR</td>
<td>0-35%</td>
</tr>
<tr>
<td>EFFICIENT</td>
<td>SQR</td>
<td>36-100%</td>
</tr>
<tr>
<td>INEFFICIENT</td>
<td>1.1 X SQR</td>
<td>101-150%</td>
</tr>
<tr>
<td>EXCESSIVE</td>
<td>1.15 X Tier 3</td>
<td>151-200%</td>
</tr>
<tr>
<td>WASTEFUL</td>
<td>1.25 X Tier 4</td>
<td>201% +</td>
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</table>

<table>
<thead>
<tr>
<th>RATE TIER</th>
<th>RESIDENTIAL</th>
<th>% OF ALLOCATION</th>
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<tbody>
<tr>
<td>SUPER EFFICIENT</td>
<td>.84 X SQR</td>
<td>Indoor</td>
</tr>
<tr>
<td>EFFICIENT</td>
<td>SQR</td>
<td>Outdoor</td>
</tr>
<tr>
<td>INEFFICIENT</td>
<td>1.25 X SQR</td>
<td>101-150%</td>
</tr>
<tr>
<td>EXCESSIVE</td>
<td>1.3 X Tier 3</td>
<td>151-200%</td>
</tr>
<tr>
<td>WASTEFUL</td>
<td>1.3 X Tier 4</td>
<td>201% +</td>
</tr>
</tbody>
</table>
WaterSmart in Action
WaterSMART In Action

Valencia Water Company

WaterSMART Allocation Program (Example)

Residential

Dedicated Irrigation

Just think how much you could save!
# WaterSMART in Action

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

### General Water Usage Detail

<table>
<thead>
<tr>
<th>Rate Tier</th>
<th>% Of Allocation</th>
<th>Price Per/Unit</th>
<th>Billed Usage</th>
<th>Cost of Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Super Efficient</td>
<td>100% of Indoor</td>
<td>1.144</td>
<td>9.00</td>
<td>$10.30</td>
</tr>
<tr>
<td>Efficient</td>
<td>100% of Outdoor</td>
<td>1.362</td>
<td>15.00</td>
<td>$20.43</td>
</tr>
<tr>
<td>Inefficient</td>
<td>101-150%</td>
<td>1.703</td>
<td>0.00</td>
<td>$0.00</td>
</tr>
<tr>
<td>Excessive</td>
<td>151-200%</td>
<td>2.214</td>
<td>0.00</td>
<td>$0.00</td>
</tr>
<tr>
<td>Wasteful</td>
<td>Over 200%</td>
<td>2.878</td>
<td>0.00</td>
<td>$0.00</td>
</tr>
</tbody>
</table>

Total: General Water Usage Charge: **24.00 $ 30.73**

### 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 last year's general rate case. The rates are effective as shown in the General Water Usage Charge above. Your billing period covers the effective date of this rate change, only the period and usage after the effective date is included in the new rates and will show in this bill. The end of your usage was prior to this effective date, so it will be included in current charges as POTTABLE usage and PER CAPITA usage. This is referred to as prorating the monthly bill. For more detailed information on the new rates, current and past usage, please visit our website at valenciacwater.com.*
WaterSMART in Action

Valencia Water Company

Conserve Water. It's for Life.

Welcome, g t | Log Out

Water SMART Allocation

Account Number: 1-8028 300. 23124 CAVELLO DR. VALENCIA, CA 01584
Customer Name: LARRY F PAYNE

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 Use...

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, 71 to 100% of your allocation this period. To maintain this level, remain observant and react to changing weather.

Your Water SMART Allocation

Current Bill Date: 09/16/2009
Values displayed in: Gallons
Display as CCFs

Your Water Use is: Efficient % of Allocations

Total Allocation 26,096 Actual Use 20,196
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)

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indoor Variance (1-2)</td>
<td>41</td>
<td>58</td>
<td>47</td>
</tr>
<tr>
<td>Indoor Variance (&gt;2)</td>
<td>6</td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td>Indoor Variance (Medical)</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Indoor Variance (Other)</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>54</strong></td>
<td><strong>77</strong></td>
<td><strong>64</strong></td>
</tr>
</tbody>
</table>
# Customer Acceptance (Outdoor Variance Requests)

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outdoor Variance Request</strong></td>
<td>15</td>
<td>38</td>
<td>26</td>
<td>9</td>
</tr>
<tr>
<td><strong>Fire Control</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Erosion Control</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Admin. Variance</strong></td>
<td>0</td>
<td>70</td>
<td>41</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>15</td>
<td>108</td>
<td>67</td>
<td>10</td>
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</table>
## Customer Acceptance
### (Customer Inquiries)

<table>
<thead>
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<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
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<tbody>
<tr>
<td><strong>General Inquiry</strong></td>
<td>45</td>
<td>360</td>
<td>452</td>
<td>424</td>
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<tr>
<td><strong>Tier Names Complaints</strong></td>
<td>0</td>
<td>2</td>
<td>4</td>
<td>1</td>
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<tr>
<td><strong>Tier Rates Complaints</strong></td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
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<tr>
<td><strong>Formal Complaints</strong></td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>45</td>
<td>363</td>
<td>457</td>
<td>425</td>
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</tbody>
</table>
# Customer Acceptance (Focused Outreach)

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
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</thead>
<tbody>
<tr>
<td>High Consumption Letter</td>
<td>0</td>
<td>416</td>
<td>6382</td>
<td>5278</td>
</tr>
<tr>
<td>Total Residential Accounts</td>
<td>25,518</td>
<td>25,672</td>
<td>25,859</td>
<td>26,198</td>
</tr>
<tr>
<td>Percent Receiving HCLS</td>
<td>NA</td>
<td>.14%</td>
<td>2.0%</td>
<td>1.7%</td>
</tr>
<tr>
<td>Residential Survey Requests</td>
<td>238</td>
<td>263</td>
<td>850</td>
<td>490</td>
</tr>
</tbody>
</table>
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!!!