This presentation premiered at WaterSmart Innovations

watersmartinnovations.com



Effectively Implementing Water Budgets for Multiple Customer Classes 2012 Water Smart Innovations

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Pulencia Water Company

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Purpose of Presentation

- Responses to Changing Water Policy Conditions in California
- Conservation Rate Design and Implementation for Multiple Customer Classes
- WaterSMART Allocation Program Software Integration
- WaterSMART at Work
- Future Tools



Valencia Water Company

- Investor Owned Utility (Regulated by the CPUC)
- Location Northern Los Angeles County
- **Population** Approximately 115,000
- Annual Sales 9.2 Billion Gallons
- Memberships Include WaterSense Promotional Partner, Alliance for Water Efficiency, California Urban Water Conservation Council









Changes to Statewide Water Policy in California

- 20% Reduction in GPCD by 2020(State Legislature)
- 1-2% Annual Reductions in GPCD (CPUC)
- 18% Reduction in GPCD by 2018 (CUWCC)



Valencia's Conservation Strategy

Traditional (Widget Based) Program Approaches

- Regulatory
- Operations/Supply Management
- Incentives and Rebates
- Education and Training







Conservation Program Challenges

- Decreased Program Participation Rates
- Market Saturation (Early Adaptors)
- Decreased Water Savings Potential from Indoor Devices
- Unpredictable Weather Conditions
- Volatile Economic Conditions
- Impacts on Revenue
- Public Perception of Conservation



Questions: Are there other WCO's on the table that can rebrand/retool/reboot our conservation efforts?

Opportunity -Retail Water Rates

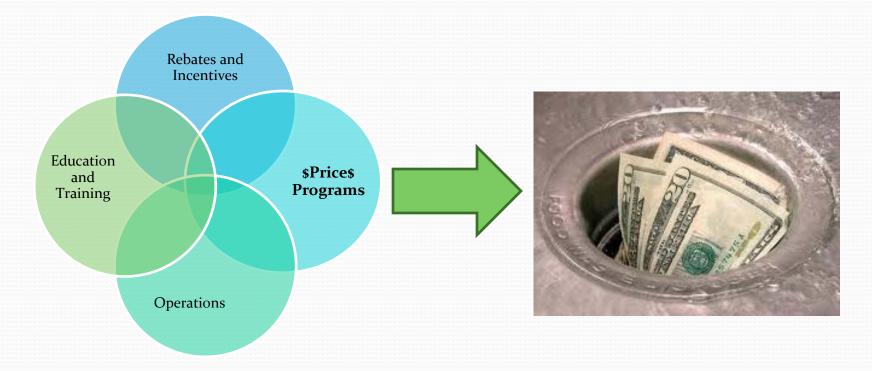
- CUWCC BMP 1.4 (Utility Operations)
 - 70% Revenue from Volumetric Water Sales (Single Quantity Rate)
 - 30% Revenue from Fixed/Meter Charges



$$V/(V+M) \ge 70\%$$



Retooling Retail Water Rates



Paradigm Shift in Valencia's Water Conservation Rate Design

Conservation Rate Design Implementation Plan

- Phase I 2011 Residential
- Phase II 2012 Dedicated Irrigation Meters
- Phase III 2015 Multi-Family Residential and Public Authority
- Phase IV 20?? Commercial/Industrial/Institutional









Phase I: Residential Water**SMART**Allocation Program



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







Defining "Water Allocations"

Often to 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 ~

- Indoor Allocation Based on 55 gallons per person per day for 4 people for a given billing period (Variances available for additional persons).
- Outdoor Allocation Uses publicly available aerial imagery and GIS software to measure each residential customer's landscaped area and includes varying monthly Evapotransporation needs required to keep plants happy and healthy (ET from Santa Clarita Valley CIMIS Station 204).
- 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.
 - **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.

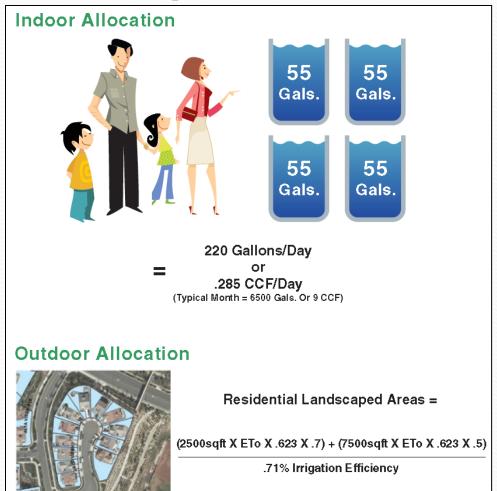
Residential WSA Program

- **Tier 1** Indoor Allocation
- **Tier 2** Outdoor

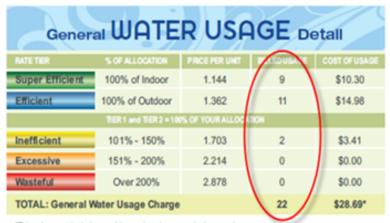
(Customer's Allocation)

- Tier 3 101-150%
- Tier 4 151 200%
- Tier 5 >200%



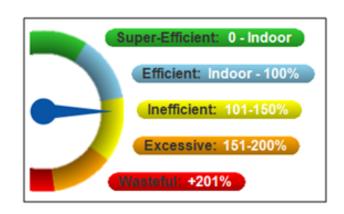


Tiered Rate Structure



Water use will be charged at incremental rates. (sample)

ALLOCATION - 20 ccf ACTUAL USE - 22 ccf



"Price does not include monthly service charge and other surcharges

WaterSmart Allocation and Tiered Rates Program

- Fair and Equitable
- Promotes Water Use Efficiency
- Based on Customized Customer Characteristics
- Indoor Allocation Uses National Statistics on Indoor Water Use
- Irrigation Allocation Actual Landscaped Area and Local Weather Data

Provides Customized Information on a Mass Scale

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



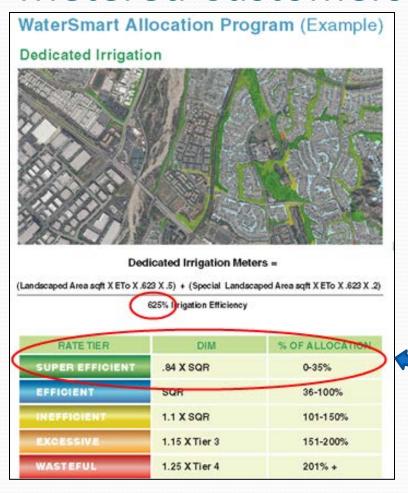
Conservation Rate Design Challenges

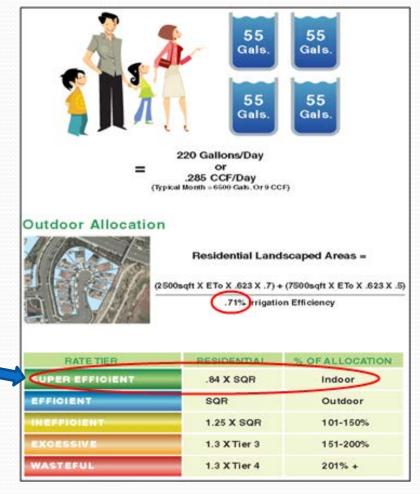
- Varying Demand/Consumption Loads and Use Profiles
- Significant Increases in Monthly Consumption (Golf Courses, Parks, etc...)
- Operational Capacities (62.5% IE v. 71% IE)
 - Upgrade Costs (Back-end Sticker Shock)
- Growth for Recycled Water Use Customers



Water**SMART** for Dedicated Irrigation Metered Customers

Vs.





Dedicated Irrigation Meter Program

Residential Program

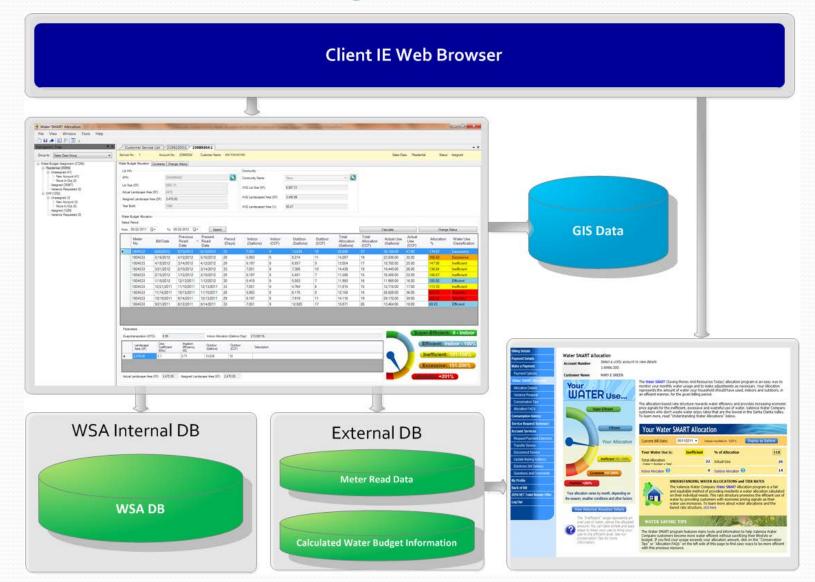
Water**SMART** Allocation Program Software Integration



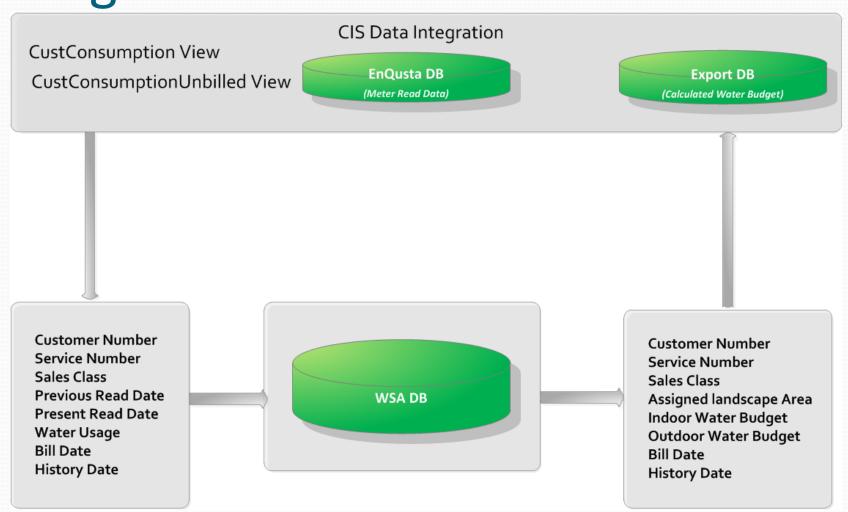
Phase I: Residential Water**SMART**Allocation Software Integration



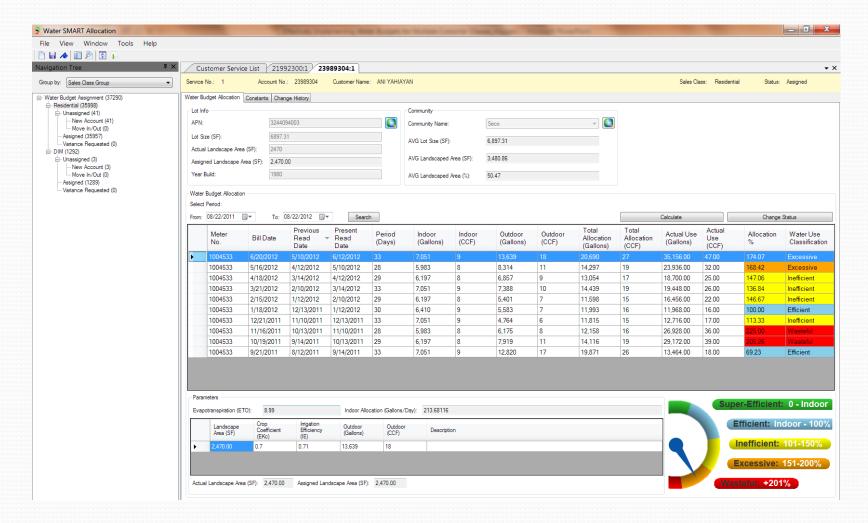
Software Design



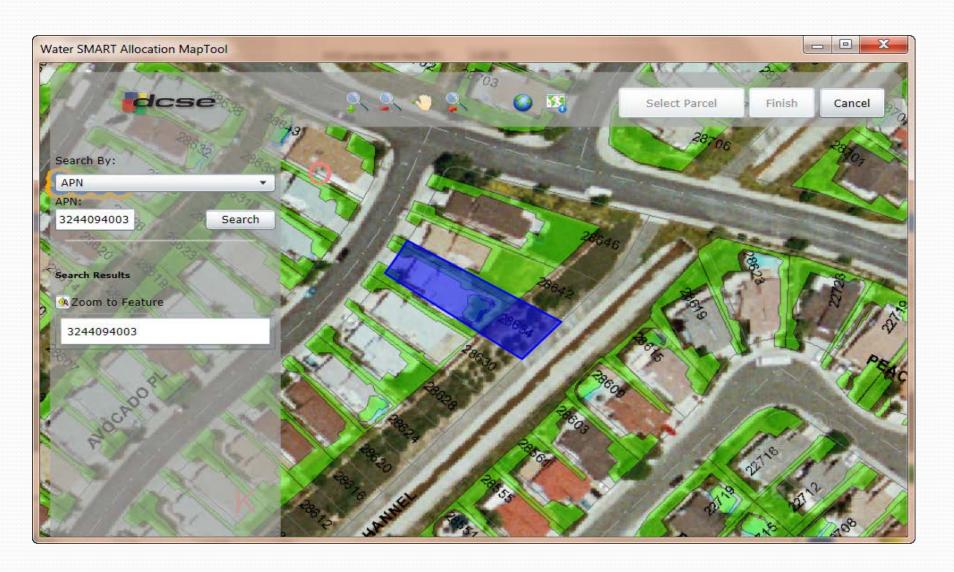
Customer Information System Integration



WaterSMART GUI-I



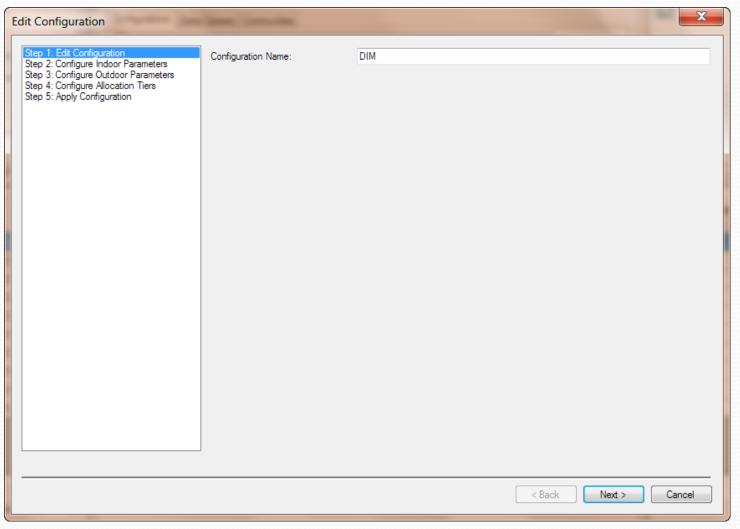
WaterSMART GUI-II



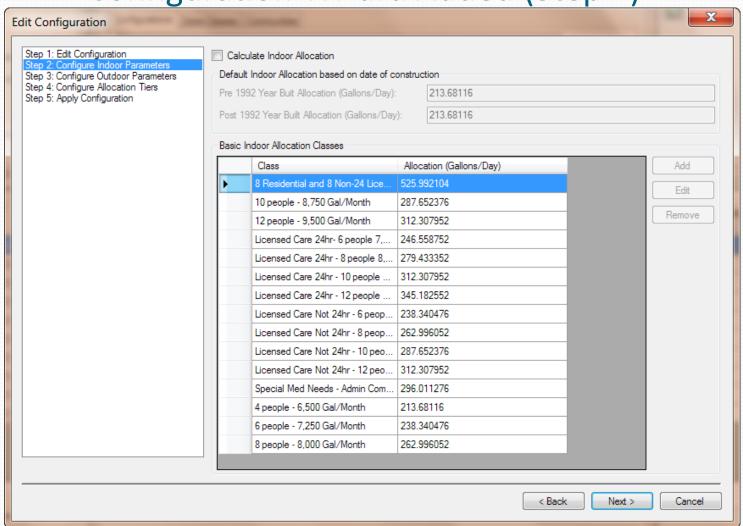
Phase II: Dedicated Irrigation Meter Software Integration



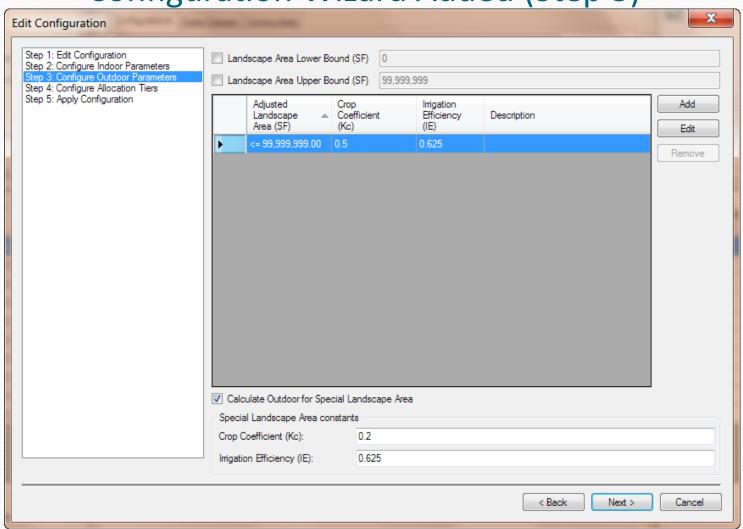
Configuration Wizard Added (Step 1)



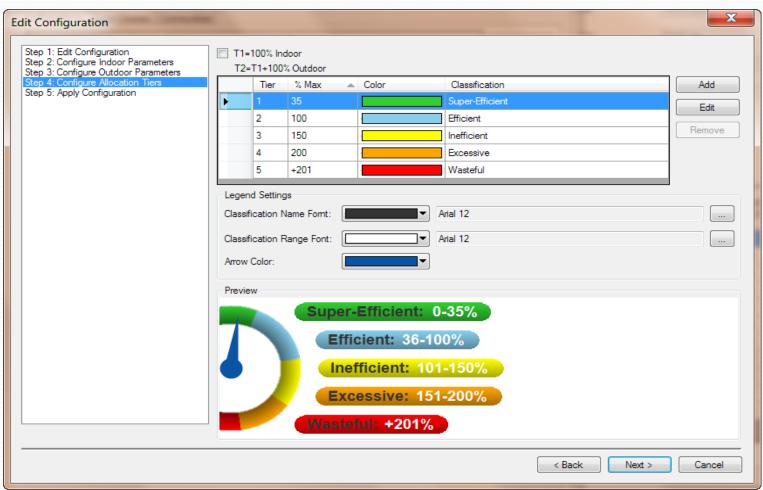
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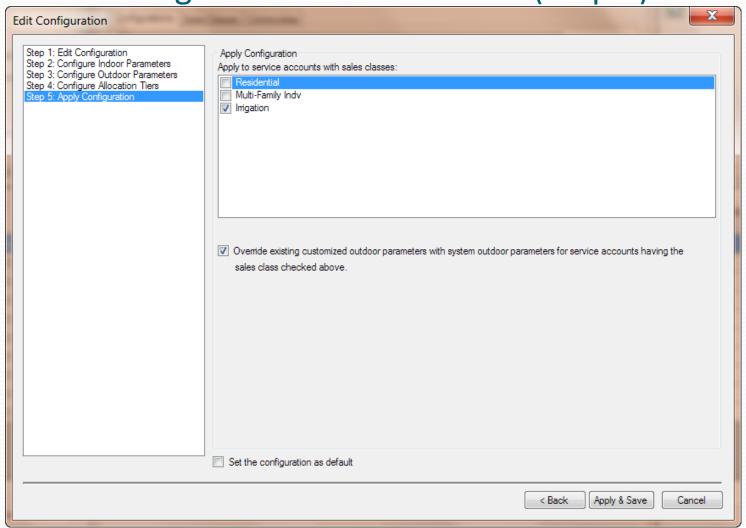
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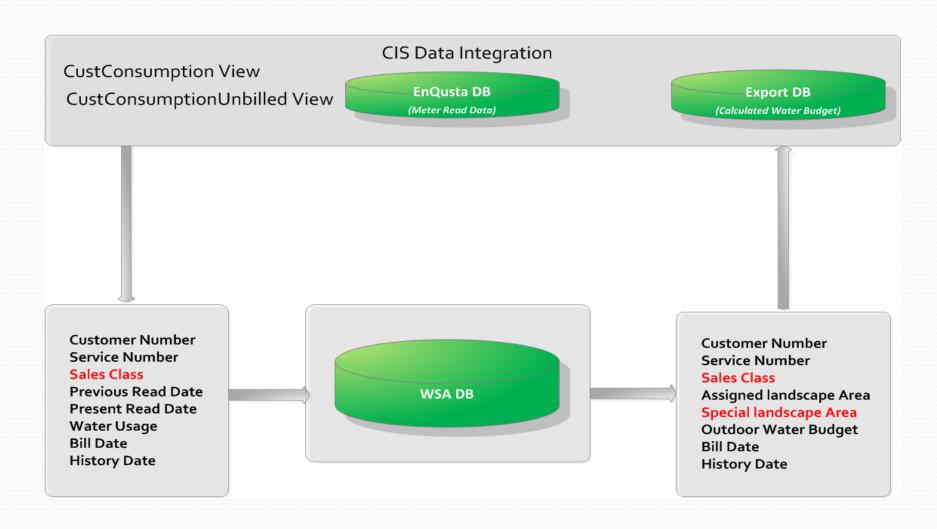
Configuration Wizard Added (Step 4)



Configuration Wizard Added (Step 5)



CIS Integration



WaterSMART in Action





WaterSMART In Action





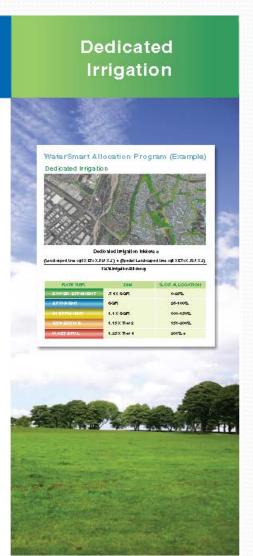




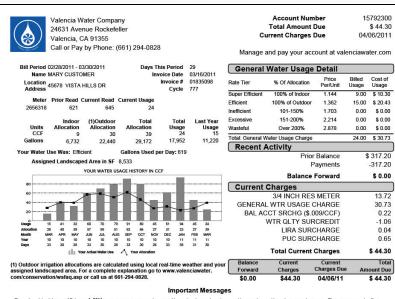


Water Company





WaterSMART in Action



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, succedits 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

To change mailing address, check here and fill out back

MARY CUSTOMER VALENCIA, CA 91355

Payment Coupon

Account Number 15792300 Invoice Date 03/16/2011

Location Address 45678 VISTA HILLS DR

Current Billing Period 02/28/2011 - 03/30/2011

Ralance Current Current Total Ralance Forward Charges Due Charges Due \$44.30 \$0.00 04/06/2011 \$44.30 Please use only blue or black ink Amount

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

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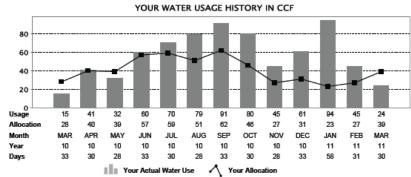
General Water Usage Detail

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					

Units	Indoor Allocation	(1)Outdoor Allocation	Total Allocation	Total Usage	Last Year Usage
CCF	9	30	39	24	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



WaterSMART in Action



WaterSMART In Action



Valencia Water Company

Water Conservation

Conservation Tips | Leaks and Fix-its | View Your Usage History

Customer Service

Water Conservation

> Water Quality

About Us

Hot Links







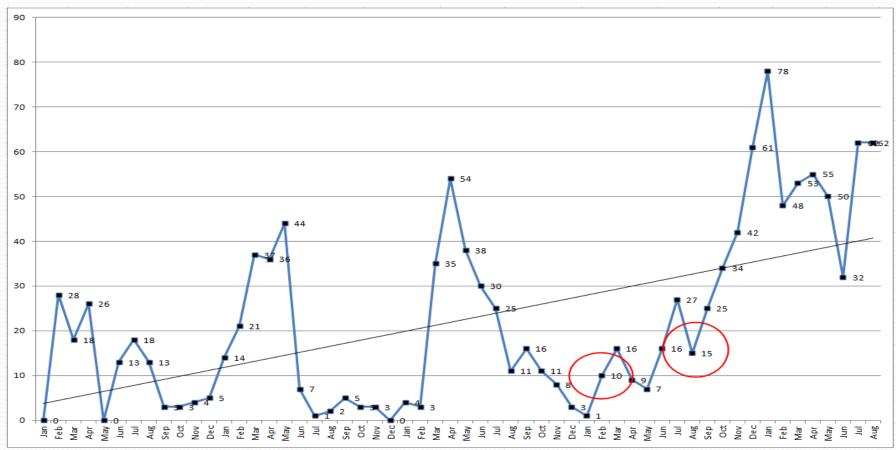
With WebConnect⁶



- · What is the Water SMART allocation program?
- . How is my outdoor water allocation calculated?
- . How is my Indoor water allocation calculated?
- Why were four people in a household used?
- · How do I know my water allocation?
- · Why do we need water allocations?
- · Are water allocations new?
- · What are the advantages of a water allocation?
- Will water allocations vary?
- Why do I get my water allocation after the month is over?

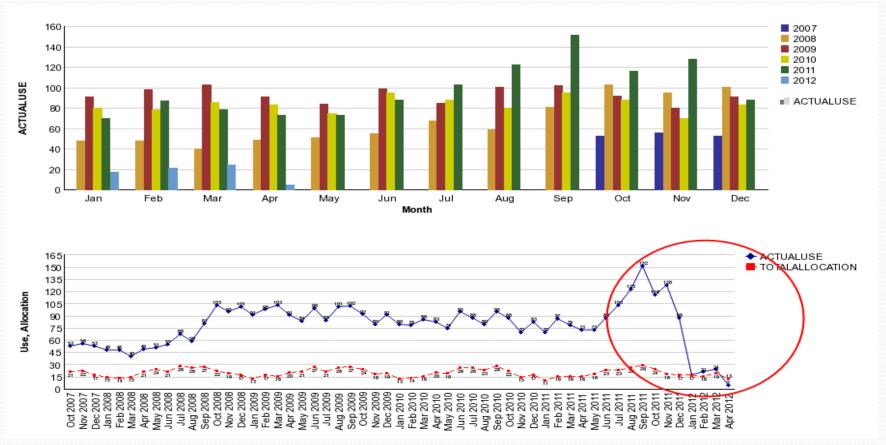
- · What are the allocation ranges?
- If I am above my allocation, how do I reach the efficient level?
- Will my rates change with a water allocation?
- Will everyone have a water allocation?
- Are there other ways to encourage people not to waste water?
- What if I need more water?
- What is the formula for daily outdoor water allocations (WA)?
- What is evapotranspiration (ET)?
- Where do you get the evapotranspiration information?

WaterSMART in Action



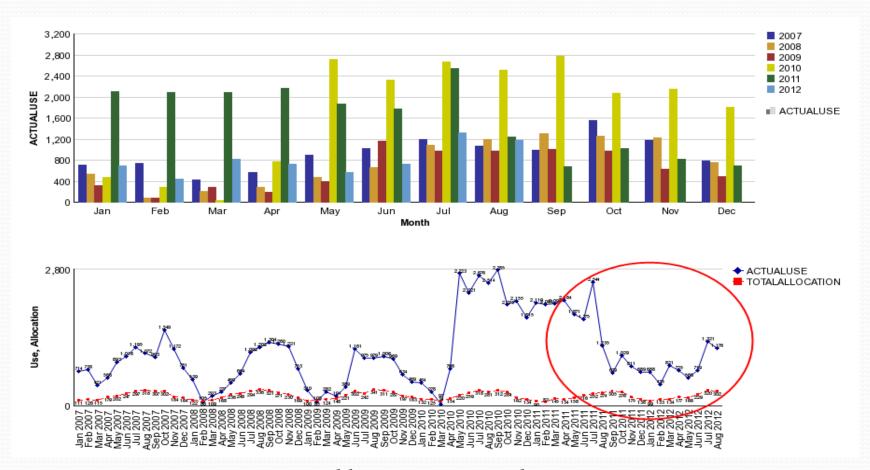
Completed Residential Water Audits by Month (2008 – 2012)

WaterSMART In Action



89,000 Gallons Saved Per Month!!!

WaterSMART in Action



Over 17,000,000 Gallons Saved Since August 2011!!!

Future Tools



Future Tools

- Integrate Additional Customer Classes
- Management/Planning /Rate Design Tools
- Spatial ET Data from CIMIS Web Site
- AMI and Two-Way Communication Possibilities
 - Real-time Response to High Water Use
 - Time of Use Pricing
- Reporting Features
 - Customer Water Usage/Budget Report
 - Key Performance Indicator (KPI) Report





Questions?

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Thank You!!!



