This presentation premiered at WaterSmart Innovations

watersmartinnovations.com
Behavioral Water Efficiency = Power to Nudge
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Population
475,112

Water sources
85% surface water; 15% ground water

Surface water sources
60% Sacramento River; 40% American River

Accounts
over 130,000; 92% residential single-family

52% metered
• 26,999 AMI
• 38,505 mobile meters (will be converted to AMI within 18 months)
Planned efficiency efforts

- Water conservation measures
- Metering, customer leak detection and pricing
- System leak detection

WATER SAVINGS IN YEAR 2020 (AFY) FROM CITY OF SACRAMENTO’S WATER CONSERVATION PLAN

- Water Conservation Office: 2,400
- Plumbing Code and Standards: 6,500
- Conservation Pricing: 5,800
- Water Loss Reduction: 5,200

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The partnership: Follow the Meter
Goals

Increase:

• Water-use efficiency
• Leak detection using AMI & alerts
• Program participation (e.g., rebates)
• Gauge interest in consumption information

Fulfill grant requirements:
“Follow the Meter” program funded by U.S. Bureau of Reclamation
Behavioral water efficiency

Engage customers with enhanced water-use information that motivates and enables efficiency.

INFORMATION + SOCIAL NORMS
**Pilot set-up**

5,000 homes in Land Park/Pocket neighborhood receive Home Water Reports beginning September, 2013.

6,400 homes in Control Group, from which propensity-matched homes drawn for analysis.
Why conserve?
WHY CONSERVE?
Reduce operating expenses

SAVING WATER IS CHEAPER THAN BUYING WATER OR BUILDING
WHY CONSERVE?
Reduce capital expenses

DELAY, DOWNSIZE OR AVOID NEW WATER SUPPLY PROJECTS
WHY CONSERVE?
Triple customer engagement

- **WATERSMART**: 74%
- **CONTROL**: 26%

Requested Onsite Water Consultation

CUSTOMERS AS PARTNERS INSTEAD OF RATEPAYERS
WHY CONSERVE?
Awareness affects behavior

PERCEIVED USE OFTEN DOES NOT MATCH ACTUAL USE
WaterSmart makes it personal
Data inputs

- Meters
- Surveys
- Citations
- Rebates & Incentives
- Real-Estate
- Weather & Climate
Outputs

CUSTOMER
HOME WATER REPORTS & WATERINSIGHT PORTAL

UTILITY
DASHBOARD & PROGRAM OUTCOMES
What the customer sees
Home Water Report

Contents

• WaterScore
• Water use in GPD
• Comparative consumption
• Rotating message modules
• Personalized water-saving actions
• Prominent URL placement
Customer Portal

Contents
• Neighbor comparisons
• Historical trends
• Seasonal use
• Estimated end use
• Targeted Recommendations
• “My Actions”
• Nudges & Alerts
• Real-time use (if AMI)
Personal and relevant analysis
Visual actions and savings

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
Personal action plan

Water saving actions you have started.

- **Mulch Under Shrubs, Bushes and...**
  - Expert Advice

- **Wash Your Car at Home Resp...**
  - 1 gpd
  - $5/year

- **Clothes Washer Rebate**
  - 18 gpd
  - $61/year

- **Hello Natives, Goodbye Grass**
  - 365 gpd
  - $1274/year

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**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.
End-use tracking

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.
Possible Continuous Leak
You used at least 3 gallons per hour continuously since Wed, Jul 10, 2013.
That’s 1,277 gallons!

Your Water Use

- Normal use
- Possible leak

Last updated Sunday, Jul 28, 2013, 4pm
Leak alerts go mobile

- 71 leak alerts since Jan 10
- 37% viewed or investigated their leak
How the utility monitors progress
Analytics Dashboard

Tools

• Customer relationship management
• Business intelligence & reporting functions
• Program management
• Water use analysis
• Feedback & tracking
• Leak & high use alerts
• Violation tracking TBD
Outcomes
CUMULATIVE SAVINGS TO DATE
5.4%, 98 Acre Feet

CUMULATIVE SAVINGS IN AF FOR ALL HOME WATER REPORT RECIPIENTS
AMI makes a difference

AMI customers saved 50% more water

Customers without AMI: 4.4%

Customers with AMI: 6.6%
Positive feedback

“I took two actions after the first report. I love receiving and reading my reports.”
—Linda P.

“I realized I have higher than average usage because I discovered a small leak at the connection of the anti-siphon valve. Continuous leak. I have replaced it with a new anti-siphon valve today.”
—Thomas L.

“I always wanted to conserve water, but the reports encouraged me to check my water use more often.”
—Julie H.
What’s next

• Positive feedback from Director, City Manager, and customers
• Thank you to U.S. Bureau of Reclamation for funding
• Continuing and expanding the program
Thank you

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