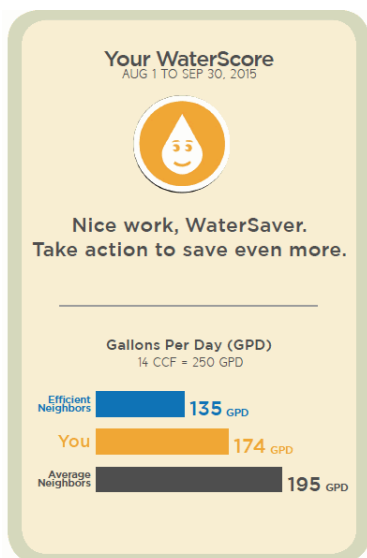


Results of the WaterSmart Experiment in Riverside Public Utilities: Water and Electricity Savings

Center for Water-Energy Efficiency
University of California, Davis

Riverside Public Utilities: Board Meeting | June 11, 2018



YOUR HOME WATER REPORT

THIS IS AN INFORMATIONAL REPORT AND NOT A BILL.



Reduce hot water use



Did you know that heating water is the second most energy intensive activity in your home?

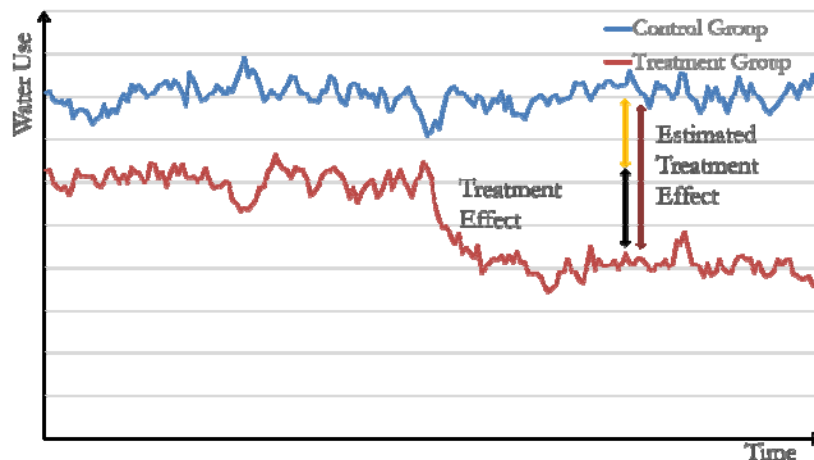
WaterSmart & Hot WaterSmart Study

Treatment groups (total sample = 53,110 households)

1. **WaterSmart: Standard Home Water Report (7,187 households)**
- deployment of the WaterSmart technology without additional new hot water messaging
2. **Hot WaterSmart: Hot water Home Water Report (7,172 households)**
- standard WaterSmart report with additional, targeted hot water messaging
3. **Control: – no treatment (38,751 households)**

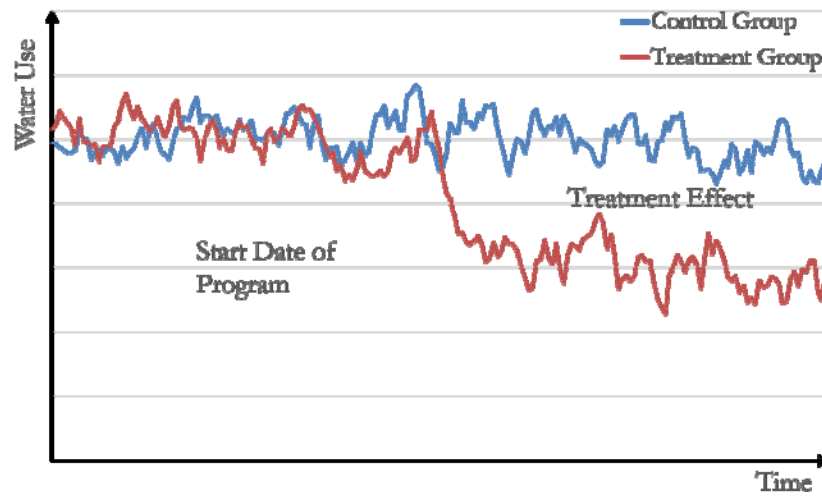
Experimental Study Design – Treatment Groups

Biased Experiment



Experimental Study Design – Randomized Control Trial

Correct Experiment



Experimental Study Design – Randomized Control Trial

Reduction

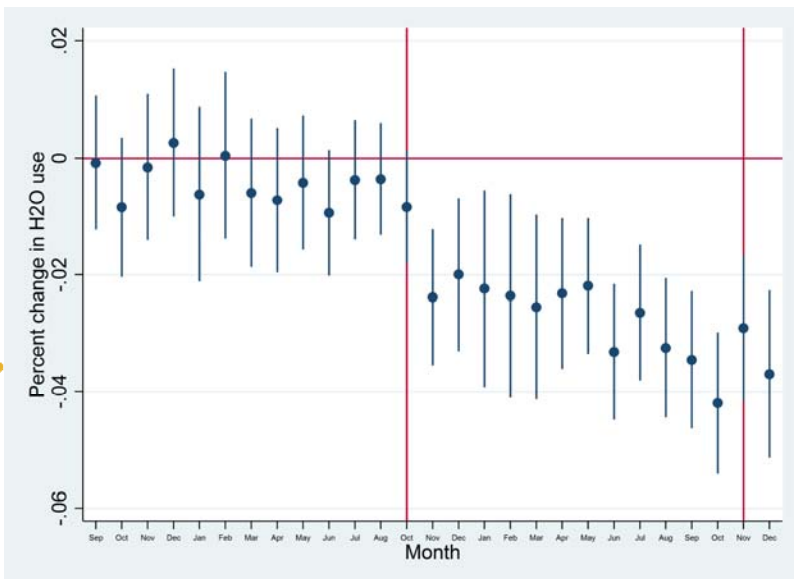
overall
2.2%

4.0%
summer

Savings

88,385

CCF



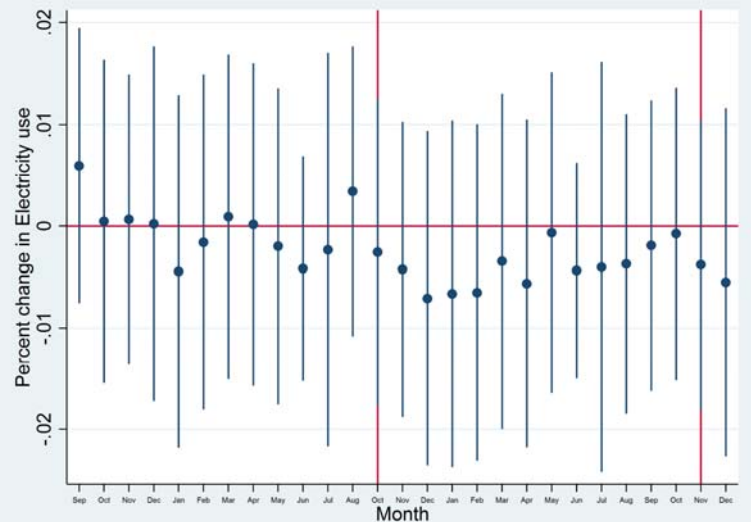
WaterSmart Water Results over Time

small
Reduction

HWS
0.7%

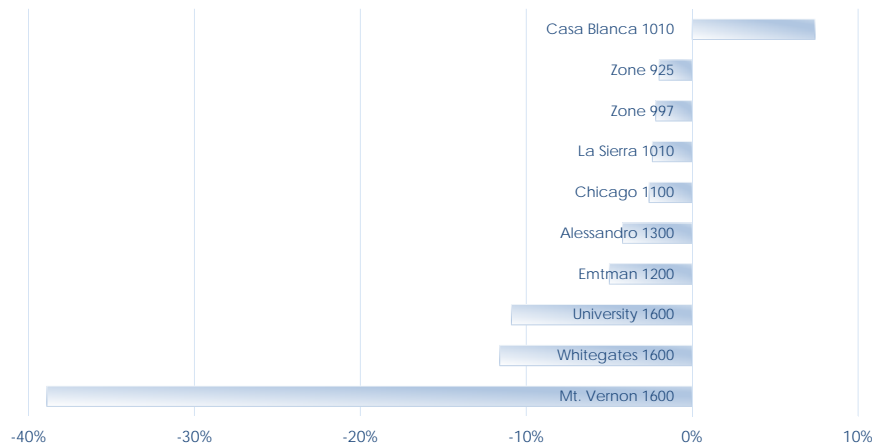
Savings

447,004
kWh



Hot WaterSmart Electricity Results over Time

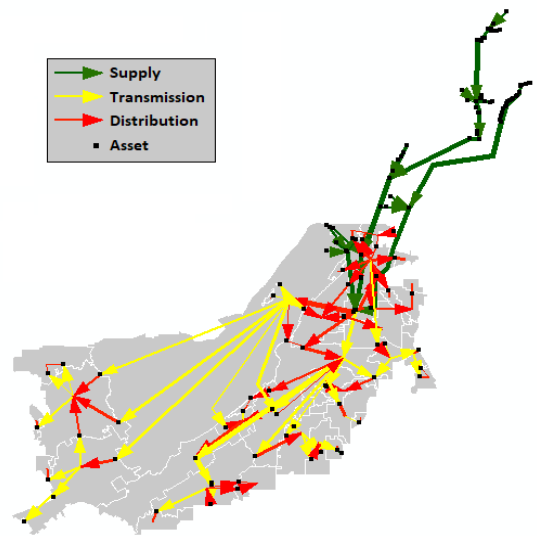
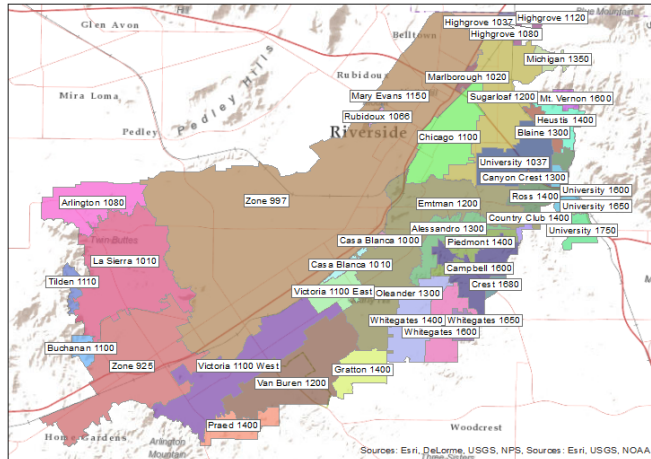
Change in household water use



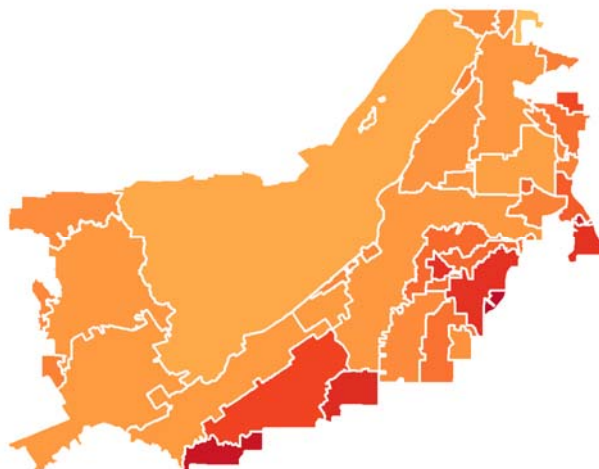
- Most of the water savings are attributable to only 9 of 39 pressure zones

	# of treated households
Mt. Vernon 1600	3
Whitegates 1600	45
University 1600	32
Emtman 1200	1,183
Alessandro 1300	171
Chicago 1100	584
La Sierra 1010	1,211
Zone 997	6,160
Zone 925	1,585
Casa Blanca 1010	97

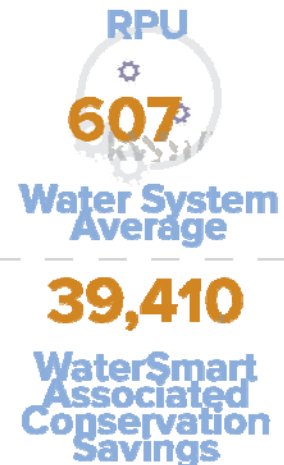
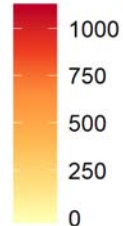
Water Savings by Pressure Zone



Water System Energy Intensity - Modeling



Energy Intensity
(kWh / MG)



Water System Infrastructure Energy Savings

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Thank You