

# This presentation premiered at WaterSmart Innovations

[watersmartinnovations.com](http://watersmartinnovations.com)



# The Role of Social Norms in Fostering Residential Water Conservation



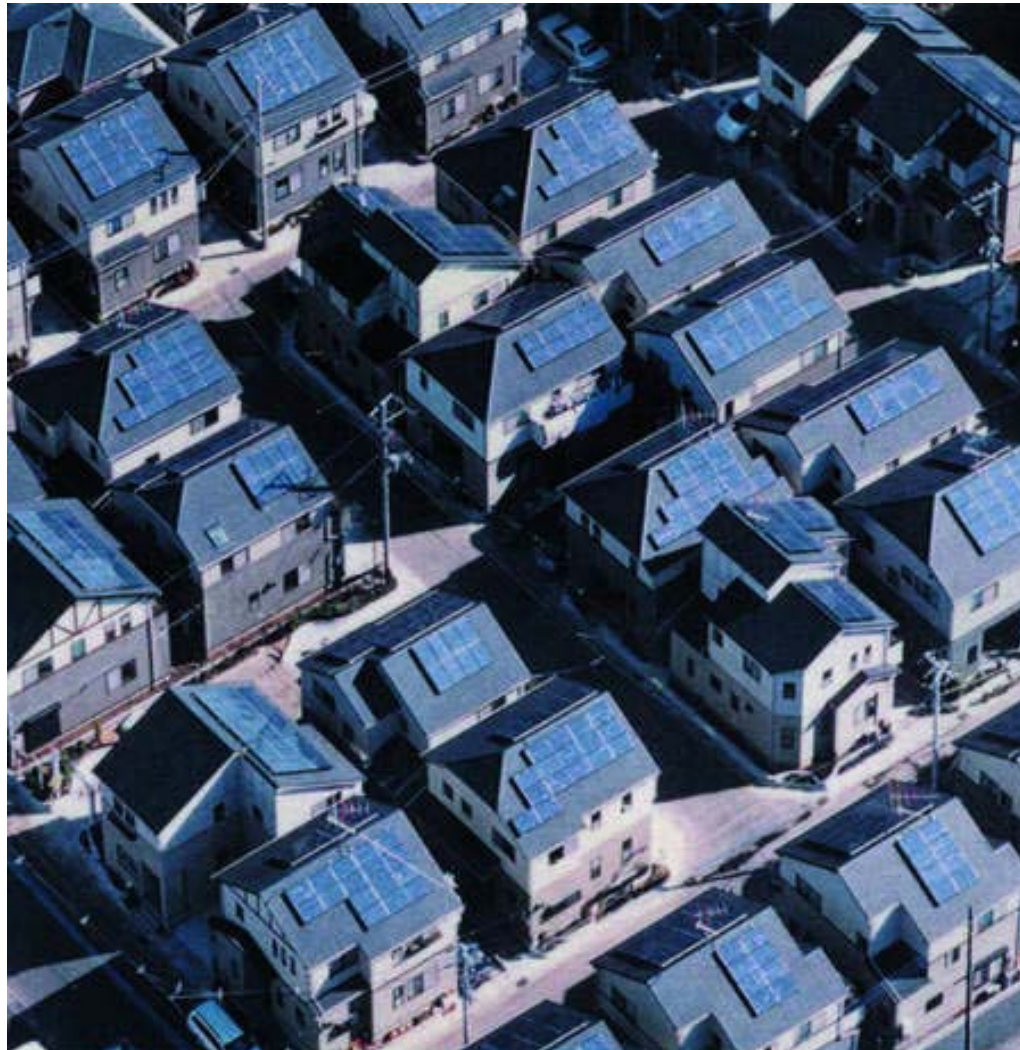
P.W. Schultz

*Presented at WaterSmart 2010*



California State University  
SAN MARCOS

# Social by Nature





# Normative Social Influence

**Social norms**--an individual's beliefs about the common and accepted behavior in a specific situation.

1. Formed through social interaction
2. Powerful influence on behavior
3. Most powerful in novel situations
4. Types of norms (injunctive and descriptive)

# Normative Social Influence



Schultz, P. W., Nolan, J., Cialdini, R., Goldstein, N., & Griskevicius, V. (2007). The constructive, destructive, and reconstructive power of social norms. *Psychological Science*, 18, 429-434.

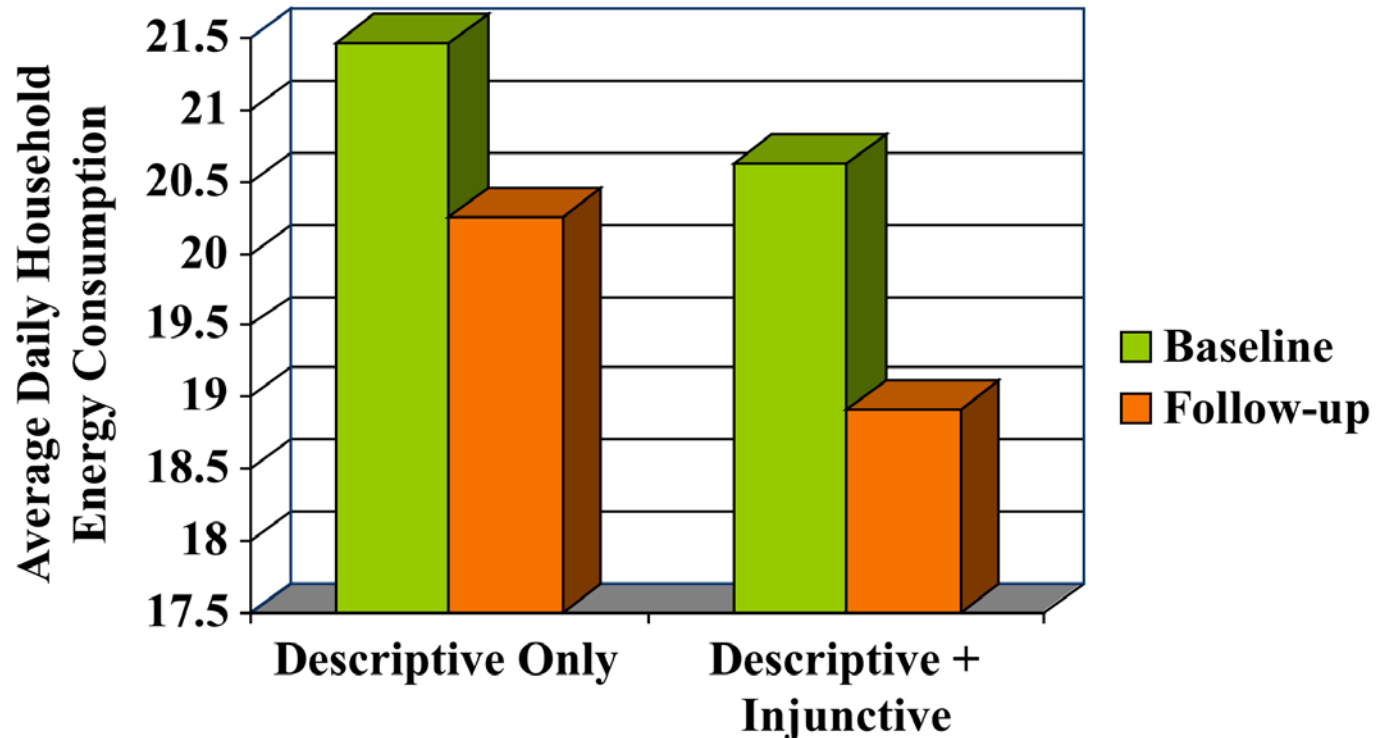
- Participants: 290 households with visible utility meters
- Distributed individual feedback and normative feedback to households for two consecutive weeks
- Conditions:
  - Usage level (above or below neighborhood average)
  - Emoticon (positive or negative 😊)



# Normative Social Influence

## - Results

High Consumers ☹️

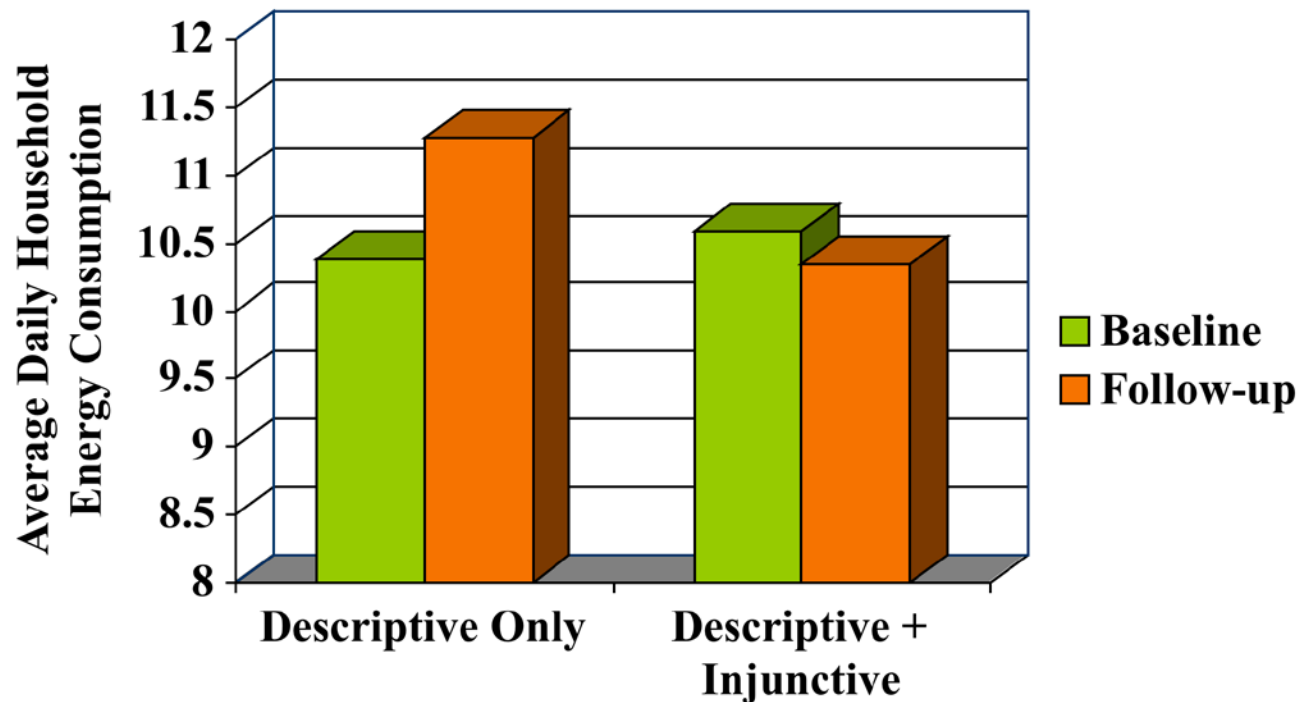


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# Normative Social Influence

## - Results

Low Consumers 😊

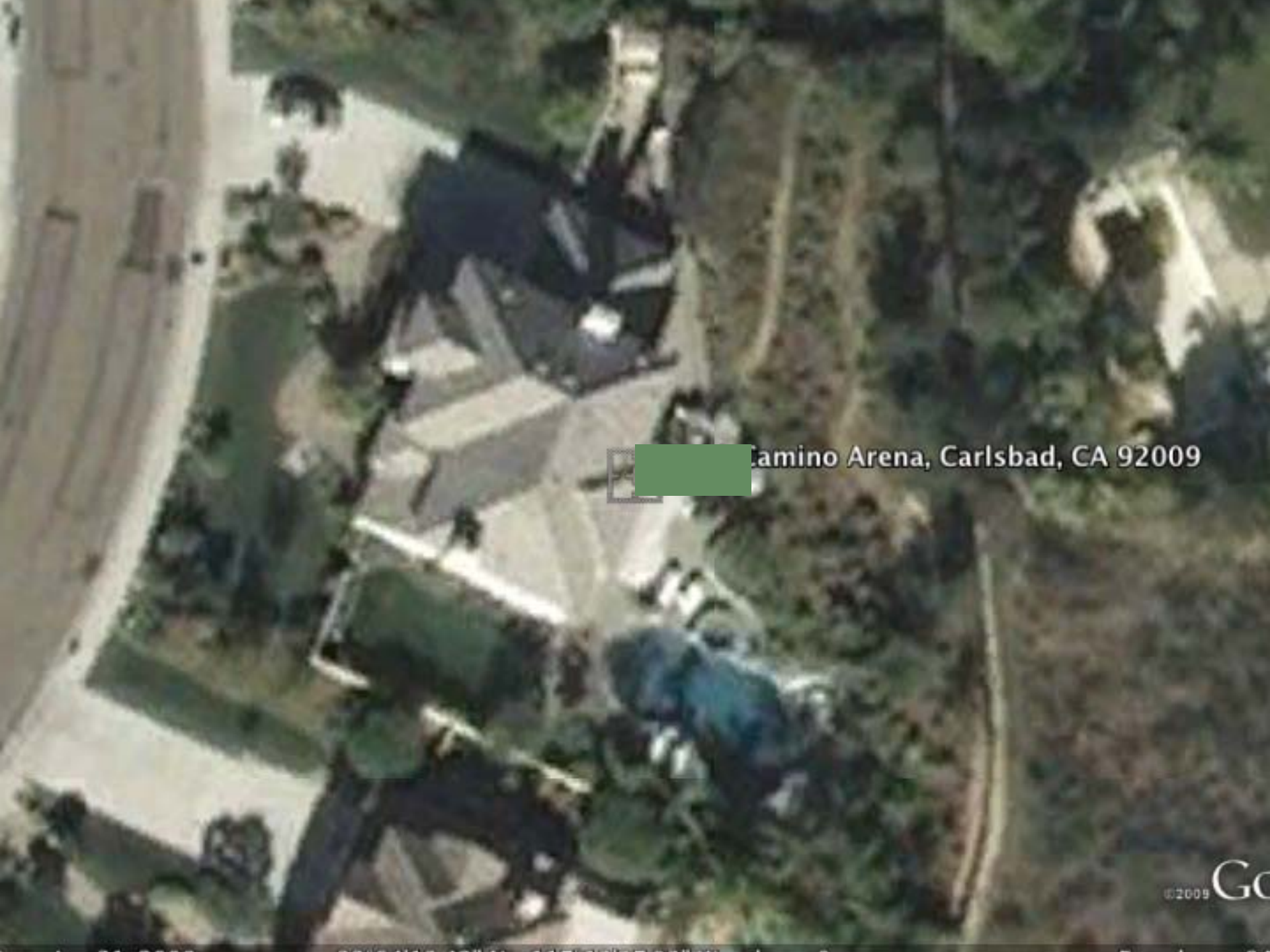






# Normative Social Influence

- Norms serve as a guide for behavior
- Magnetic middle
- Generally not perceived as motivational (Nolan et al., 2008)
- Stronger effects for individuals who are less motivated (Göckeritz et al., 2010)
- New study to extend these findings



Camino Arena, Carlsbad, CA 92009





Cal State San Marcos

## Water Usage Survey

This short survey is part of a project being conducted by researchers at California State University, San Marcos. The questions are about residential water use, and water conservation. The questionnaire should only take about 10 minutes to complete. Your participation is completely voluntary, and you may choose not to respond to any or all of the items. All responses to this survey are confidential, and only members of the CSUSM research team will have access to the data.

### I. Home Water Use

To what extent do you agree or disagree with the following statements. Please circle one answer per statement.

OVERALL	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
A. The amount of water I use at home can be reduced.	1	2	3	4	5
B. It is important to me that I conserve water every day.	1	2	3	4	5
C. I talk with others in my household about how to reduce the amount of water we use.	1	2	3	4	5
D. I talk with neighbors about how to reduce the amount of water they use.	1	2	3	4	5
E. I am willing to modify my daily routine in order to use less water.	1	2	3	4	5
F. People in my neighborhood approve of water conservation.	1	2	3	4	5
G. People in my neighborhood are doing things to conserve water.	1	2	3	4	5
H. People in San Diego County are doing things to conserve water.	1	2	3	4	5
I. People throughout California are doing things to conserve water.	1	2	3	4	5

## At a Glance

Last updated at 06:52:03 AM  
on Tuesday, Aug 11, 2009

[What is a community average?](#)

**TODAY** (09/10/2009)

you used **1,631 GALLONS** which is **54%** more than the community average.

**YESTERDAY** (09/09/2009)

you used **291 GALLONS** which is **73%** less than the community average.

**LAST WEEK** (08/30/2009 - 09/05/2009)

you used **7,193 GALLONS** which is **13%** less than the community average.

**LAST BILLING PERIOD** (07/01/2009 - 08/03/2009)

you used **31,416 GALLONS** which is **5%** less than the community average.



# Web-based Water Feedback

aquacue

XXX XXX

## At a Glance

Last updated at 06:52:03 AM  
on Tuesday, Aug 11, 2009

[What is a community average?](#)

### TODAY (09/10/2009)

you used **1,713 GALLONS** which is **61%** more than the community average.



### YESTERDAY (09/09/2009)

you used **310 GALLONS** which is **71%** less than the community average.



### LAST WEEK (08/30/2009 - 09/05/2009)

you used **10,515 GALLONS** which is **28%** more than the community average.



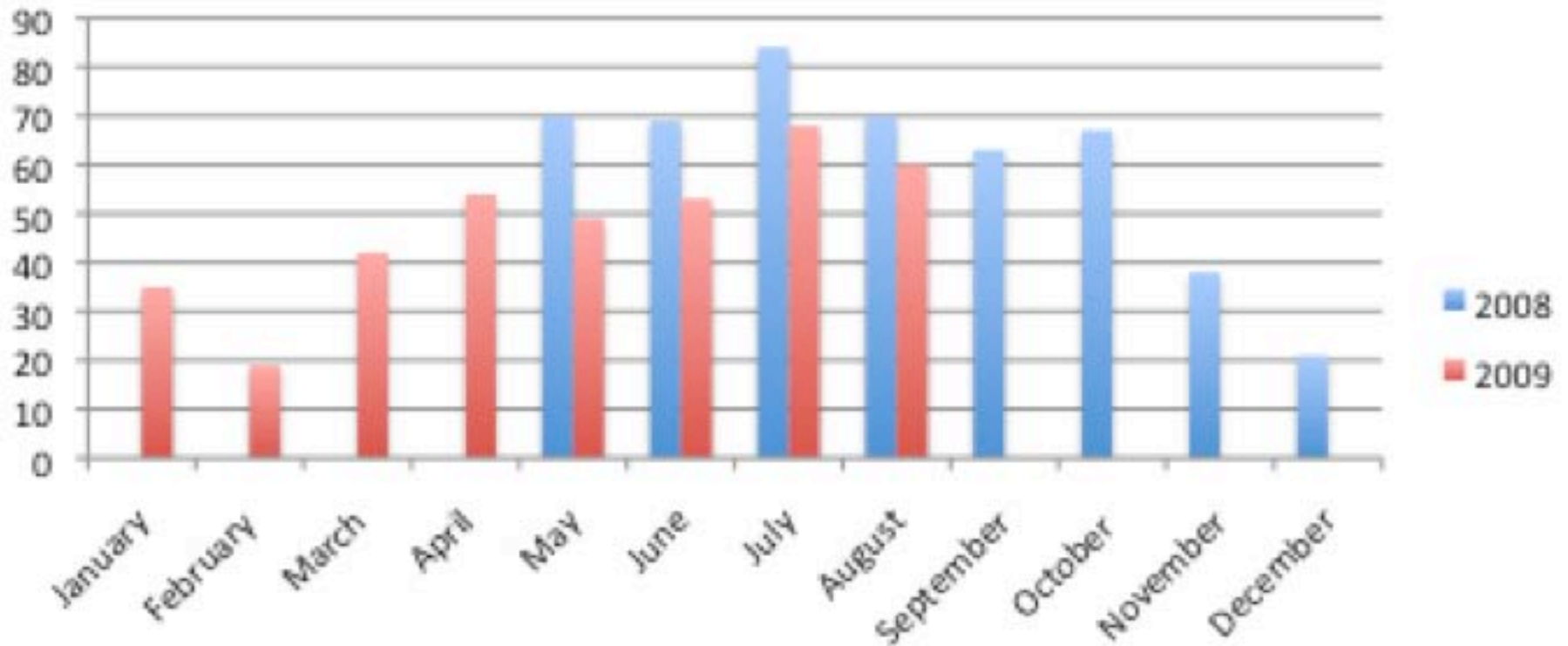
### LAST BILLING PERIOD (07/01/2009 - 08/03/2009)

you used **38,148 GALLONS** which is **16%** more than the community average.



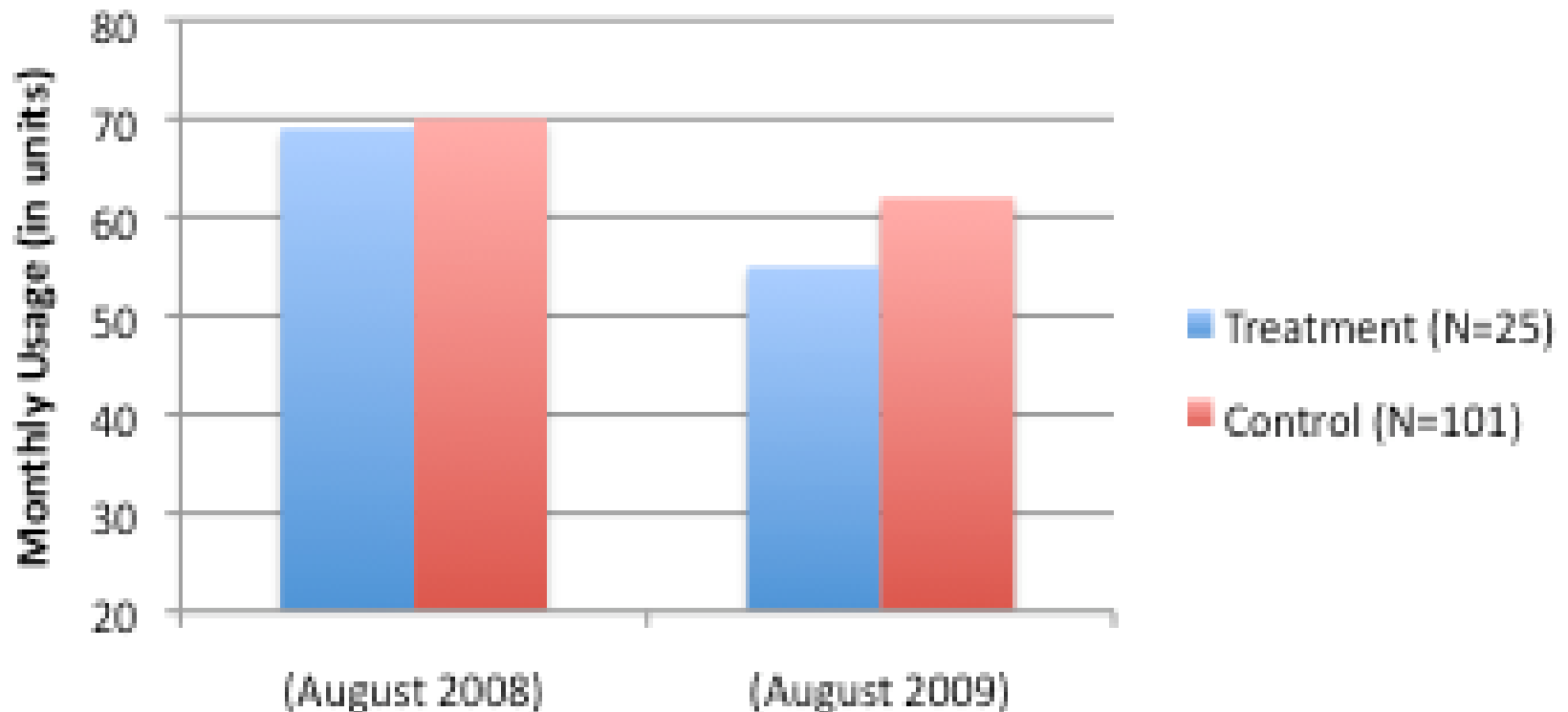
# Summary of Findings #1

**Figure 1: Trends in Water Usage**



## Summary of Findings #2

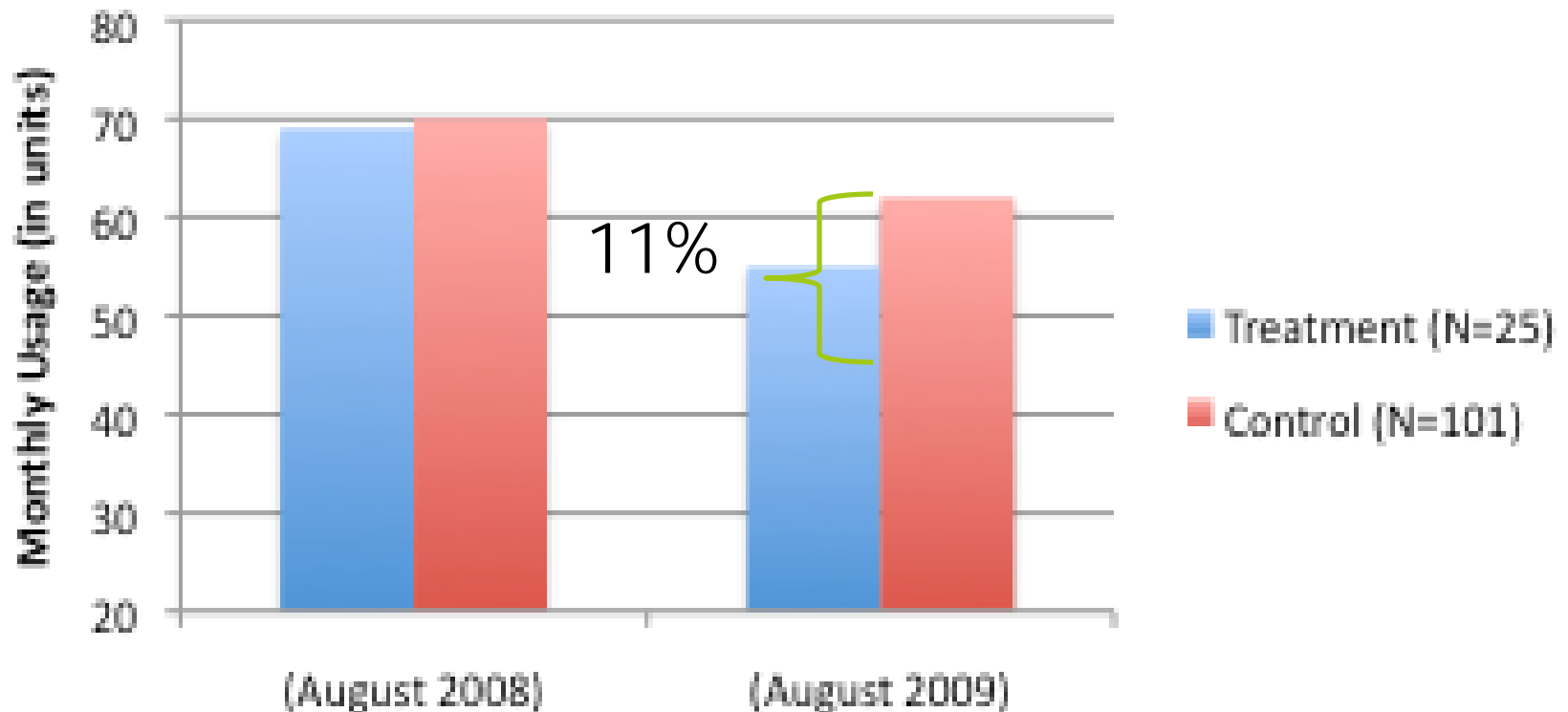
**Figure 2: Year-over-Year Comparisons for Treatment and Control**





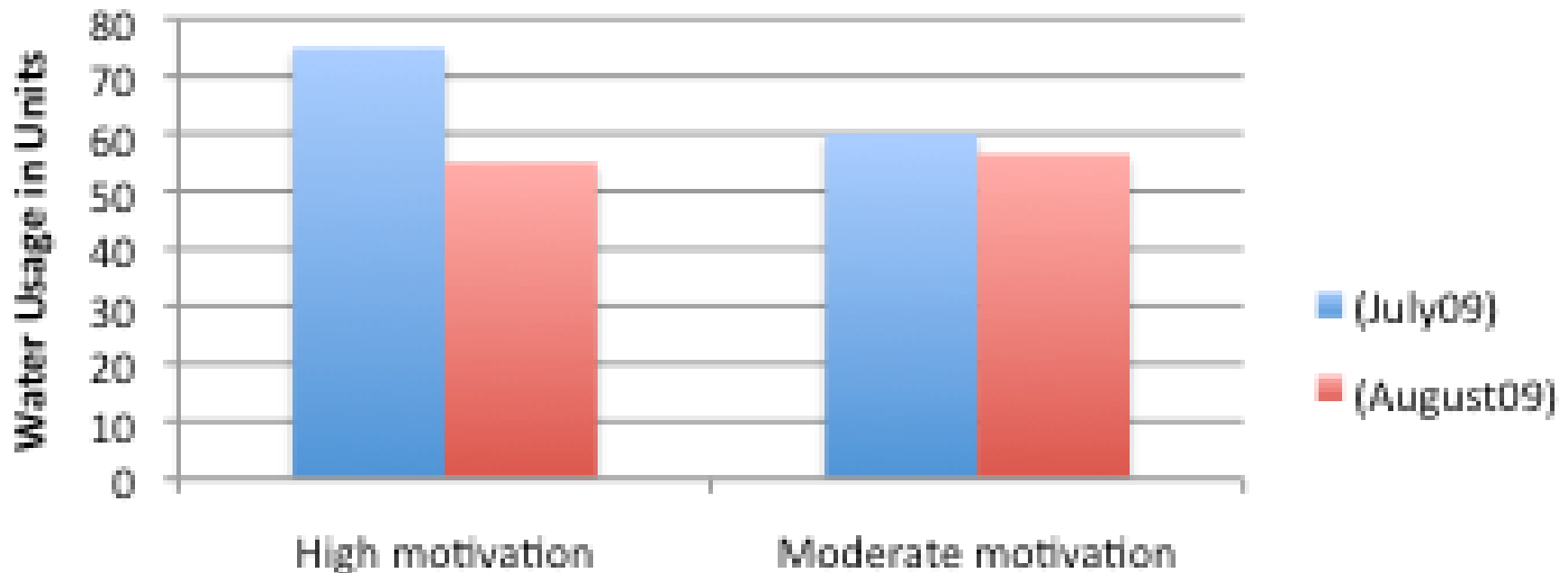
## Summary of Findings #2

**Figure 2: Year-over-Year Comparisons for Treatment and Control**



## Summary of Findings #3

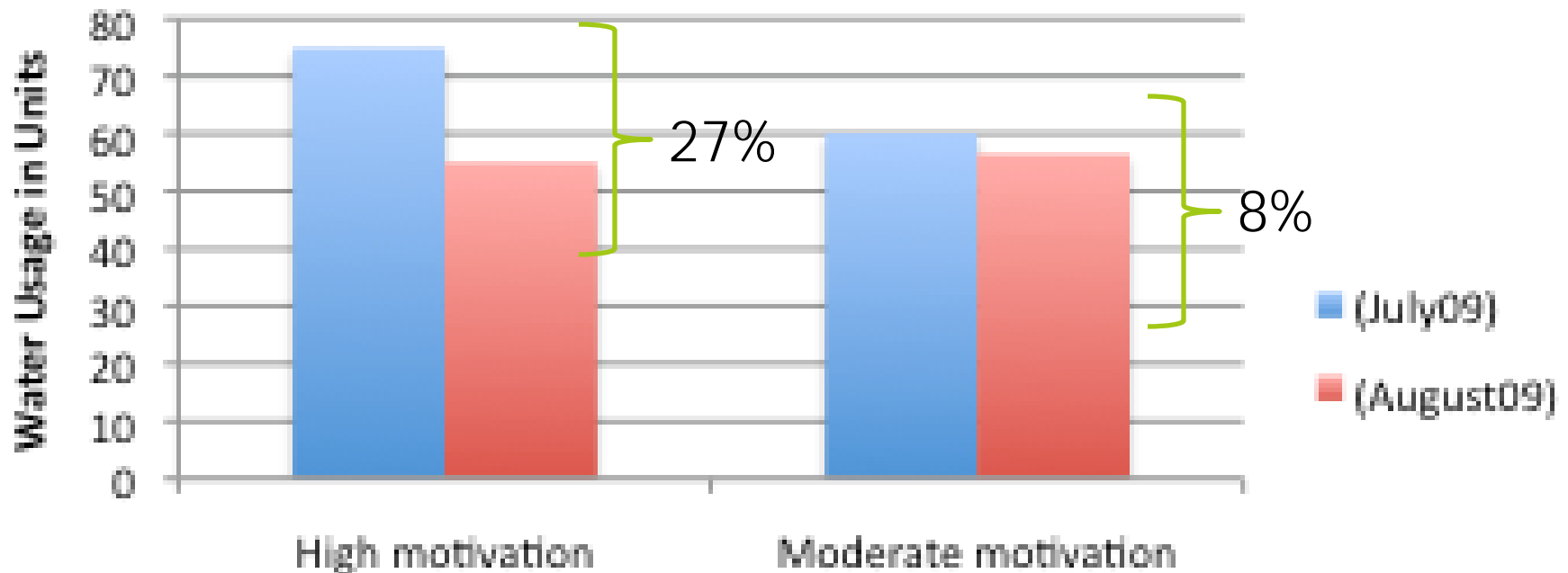
**Figure 3: Change in Water Usage by Motivation**



Q1: "It is important to me that I conserve water every day?"

## Summary of Findings #3

### Figure 3: Change in Water Usage by Motivation



Q1: "It is important to me that I conserve water every day?"



# Summary

- Normative feedback resulted in 11% reduction in residential water consumption
- Unexpected moderation effect (norms message most effective for residents with high motivation)
- Potential explanation is medium (web versus doorhangers).
- Web requires effort to access. More motivated households access the message, thereby more affected. New research underway to test this hypothesis.



# References

- Göckeritz, S., Rendón, T., Schultz, P. W., Cialdini, R., Goldstein, N., & Griskevicius, V. (2010). Normative social influence: The moderating roles of personal involvement and injunctive normative beliefs. *European Journal of Social Psychology, 40*, 514-523.
- Schultz, P. W., Nolan, J., Cialdini, R., Goldstein, N., & Griskevicius, V. (2007). The constructive, destructive, and reconstructive power of social norms. *Psychological Science, 18*, 429-434.
- Schultz, P. W., Khazian, A., & Zaleski, A. (2008). Using normative social influence to promote conservation among hotel guests. *Social Influence, 3*, 4-23.
- Nolan, J., Schultz, P. W., Cialdini, R. B., Griskevicius, V., & Goldstein, N. (2008). Normative social influence is underdetected. *Personality and Social Psychology Bulletin, 34*, 913-923.
- Schultz, P. W. (1999). Changing behavior with normative feedback interventions: A field experiment of curbside recycling. *Basic and Applied Social Psychology, 21*, 25-36.