

Original comments in black, author responses in ***bold italics***.

The authors presented a case study on previously developed approach as cited in this paper (Rosenberg et al., 2007) which was applied in other parts of the world. The authors though used recent empirical data to recommend conservation actions that households can adopt to decrease their water demand with the least cost. But what is the new scientific contribution made by the authors in this paper? I would suggest changing the title to include the fact that this work is mainly a case study like: "case study: household water use and conservation: : :". Also, Monte Carlo techniques have been used previously in many water use and conservation studies. Instead I would focus on other important and new aspects in the approach of this paper.

We disagree with regard to the paper's contribution. —We think the paper is well beyond a simple case study. A case study does not offer new insights into a problem—it's just an example of a previously developed methodology being worked out in a real world scenario. This paper, on the other hand, presents some new insights and ways of looking at problems. Notably, the combination of a simulation model ("existing conditions") and an optimization model ("least cost conservation") is not often seen in this field. The view from the utility's perspective is also different--the evaluation of rebate effectiveness has not been studied in this form before. The inclusion of outdoor water use also differentiates it from many other studies. Simply because the paper uses Monte Carlo techniques does not make it unoriginal—it is simply a building block to perform the analysis. To disqualify water use and conservation papers on the basis that they employ Monte Carlo techniques would disqualify much of the current and future research.

Besides the constructive feedback provided by the three anonymous referees, here is some additional feedback to consider:

I stress the point made by anonymous referee #3 for the need to explain the methods in the body of this paper instead of heavily referencing the Mr. Cahill's master thesis. An average reader should understand the basic research methods without going back and forth to other references.

In the revised manuscript we have elaborated on the methods and reorganized some sections of the paper. We have also provided in the revised set of references an URL to a version of Cahill's master thesis that will show all lengthy data tables and other information not included in the manuscript due to word limits.

Behavioral changes can be short term in a sense of responding to emergency or dramatic events, but studies have shown that people would go back to their old behavior afterwards. So I'm not sure if it is correct to consider behavior change as a short term action that would last forever.

We agree, and that's the way that the model does it. The short-term behavior changes only apply for the particular event to which they are invoked in. Some households do choose to implement some short-term actions for all events, but that's simply because it's cost-effective for them. If this doesn't seem right for certain actions (e.g. only flushing when necessary), then the hassle costs for these events could be increased to simulate the idea that people won't do short-term actions forever. This could be good extension to our current approach and has been highlighted in the limitations section of the revised manuscript.