



500 South 4<sup>th</sup> Avenue Brighton, CO 80601

December 16, 2014

Rebecca Mitchell  
Section Chief, Water Supply Planning  
Colorado Water Conservation Board  
Department of Natural Resources  
1580 Logan Street, Suite 600  
Denver, Colorado 80203

RE: Colorado Water Conservation Board Water Efficiency Grants  
City of Brighton WaterSmart Project 50% Completion Update

Dear Ms. Mitchell,

Please find herein, the City of Brighton's 50% project report prepared in accordance with the Water Conservation Planning Grant requirements. The report provides information on the steps completed thus far, those issues encountered and discussion on moving forward with completion of the plan.

**Program Overview and Project Steps Completed:**

The Colorado Water Conservation Board approved funds on March 5, 2014 for the City of Brighton ("City") to implement a water conservation education and outreach intended to facilitate communication with residents regarding their water use, improve the City's understanding of water use by their residential customers, and reduce annual water demand.

Since the program launch in summer 2015, the City of Brighton has worked with WaterSmart Software ("WaterSmart") to implement a program. On behalf of the City, WaterSmart randomly selected 4,000 single family residential accounts for enrollment in the year-long pilot project designed to spur conservation among enrolled homes and provide the data necessary for clear results and data monitoring. Enrolled accounts are being sent six Home Water Reports over the course of the year and have access to a web-based customer portal that presents customer-specific water use data and comparisons, and customized water-saving

recommendations. A control group was also selected, so that WaterSmart could accurately measure the impact of the program by comparing results of the enrolled “experimental group” with the control group, which did not receive any communications.




Home Water Reports help residents understand their water use by providing it in gallons per day and by providing comparative water-use data of similar households in Brighton. The Reports also provide targeted recommendations on how to reduce water use by making behavioral and fixture changes. An example print Home Water Report is below in Figure 1. The first round of Home Water Reports were mailed or emailed in August of 2014. Table 1 below shows the number of Home Water Reports sent to customers thus far. The exact number of Home Water Reports sent may not total the 4,000 accounts due to missed, suspect, or bad meter reads or account closures.

Table 1: Home Water Report Mailings to Date

Mailing Month	Email	Paper	Total Reports Sent
<b>December 2014</b>	447	2,932	3,379
<b>October 2014</b>	490	3,287	3,777
<b>August 2014</b>	482	3,380	3,862

The Home Water Report also makes use of descriptive norms, which convey what is typical, and injunctive norms, which convey what is socially acceptable. One very simple way to do this is to provide social clues through the use of visual clues. One of three “Social Norm Droplets” was included on each Home Water Report. Table 3 shows the average water use, irrigable area, and number of occupants for those receiving each of the droplets in the October Home Water Report.

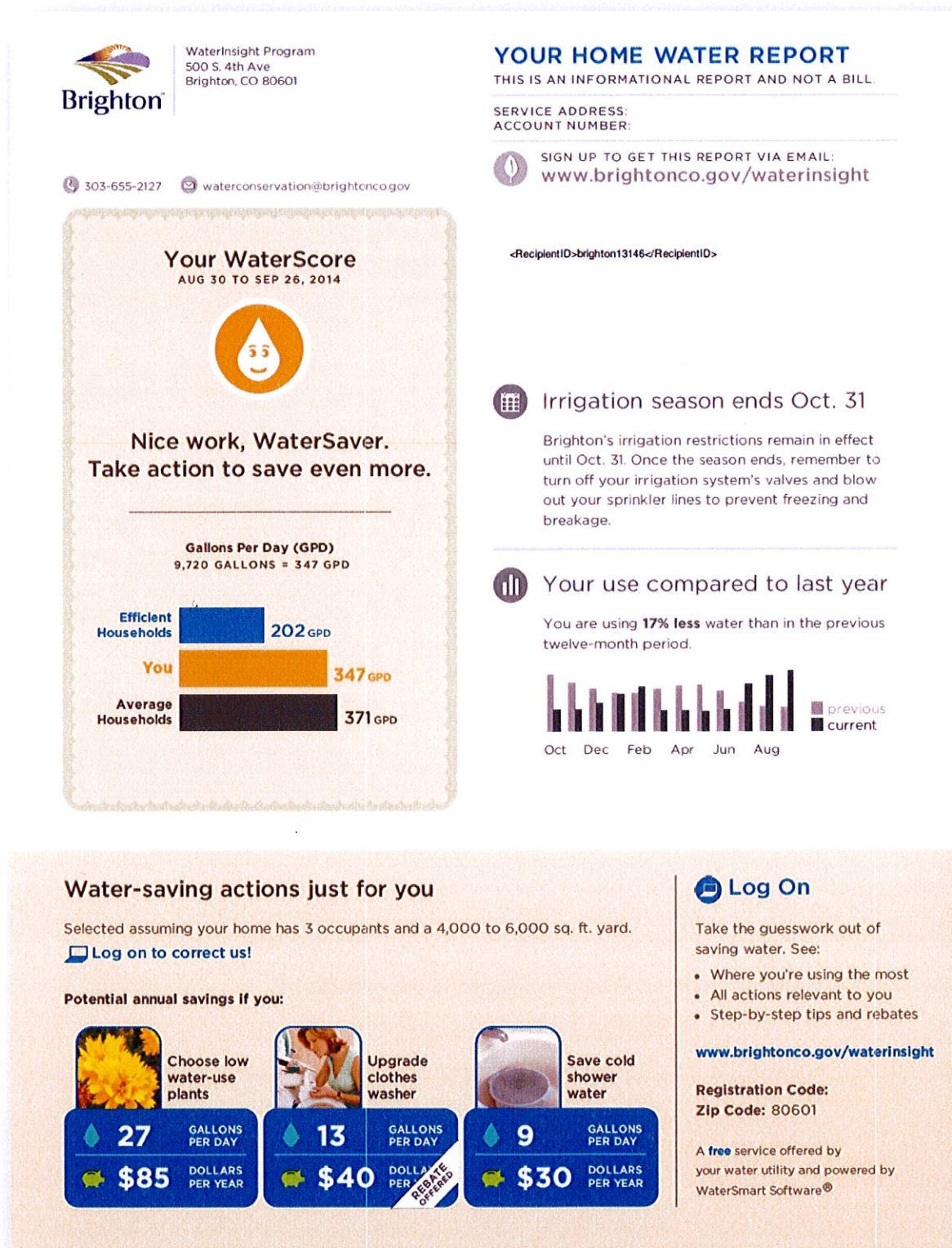
Table 2: Attributes by Home Water Report Droplet Group

Droplet Shown	Average Gallons per Day Used	Average Irrigable Area (Square Feet)	Average # of Occupants
 <b>Group3</b>	524	4808	2.7
 <b>Group2</b>	320	4662	2.7
 <b>Group1</b>	181	4682	2.6

It is worth noting that while the irrigable area and the number of occupants did not vary widely among the three groups, the average water consumption varied widely from an average of 181 gallons per day used by Group 1 to an average of 524 gallons per day used by Group 3. This disparity in usage is likely due to differences in behavior, which the injunctive norm of an emotive droplet may encourage or discourage.



Figure 1: Sample October Home Water Report



## Customer Insight Survey

Prior to sending the first Home Water Report the City and WaterSmart worked together to send a Customer Insight Survey to enrolled households. The survey asked questions about household characteristics, water-use habits and attitudes. Over 3,500 surveys were sent, with 868 responses, for a ~25% response rate. Some household characteristics of survey respondents are shown in Figures 2 and 3.

Figure 2: Household Ownership

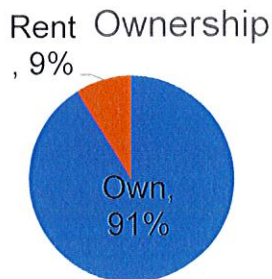
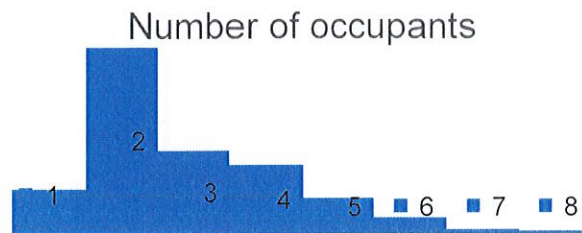


Figure 3: Household Occupancy

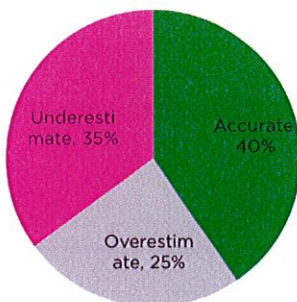


The survey also asked individuals about the potential for retrofits and upgrades to more efficient fixtures, as well as knowledge about water use. Figure 4 shows the accuracy of respondents' estimates of their consumption for summer and winter.

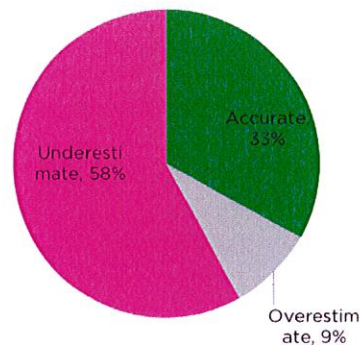
Figure 4: Accuracy of Customers' Consumption Estimates

### Accuracy of customers' consumption estimates

Accuracy of winter usage estimates



Accuracy of summer usage estimates



## Next Steps



The City of Brighton will work with WaterSmart to mail an additional three Home Water Reports, as shown in the updated program schedule in Table 4. In addition, enough data will be available for WaterSmart to begin to assess the program impact in terms of water conserved by the experimental group compared to the control group in January 2015. WaterSmart will communicate these results, as well as details about the measurement and verification process. The City of Brighton will communicate preliminary program results in the 75% completion report to be submitted in April 2015.

Table 3: Updated Program Schedule

Project Launch June 2014	WaterSmart sends Welcome Letter and Water Insight Survey to all 4,000 enrolled residential accounts. Utility Dashboard and Customer Portals are customized for the City of Brighton and are live.
August 2014	WaterSmart sends initial Home Water Reports to enrolled residential accounts.
October 2014	WaterSmart sends second round of Home Water Reports to enrolled residential accounts.
December 2014	WaterSmart sends third Home Water Reports to enrolled residential accounts. In conjunction with the City, WaterSmart prepares progress report, for submission to CWCB, which includes key insight from survey responses, program participation data, and conservation gains <b>(SUBMITTED December 16, 2014)</b>
February 2015	WaterSmart sends fourth Home Water Reports to enrolled residential accounts
April 2015	WaterSmart sends fifth Home Water Reports to enrolled residential accounts. In conjunction with the City, WaterSmart prepares progress report for submission to CWCB including program participation data, conservation gains, and other relevant metrics and statistics (SUBMIT April 30, 2015)
June 2015	WaterSmart sends final Home Water Reports to enrolled residential accounts.
July 2015	In conjunction with the City, WaterSmart prepares final report for submission to CWCB including program outcomes, conservation savings, participation by residents, post-survey results, etc. (SUBMIT July 31, 2015)

Thank you for all your support and guidance with our Water Conservation Plan Grant and if you have any questions, please contact me.

Sincerely,



Dawn M. Hessheimer  
Water Resources Specialist

Cc: Ben Wade, Colorado Water Conservation Board  
Curtis Bauers, City of Brighton Director of Utilities  
Dominique Gomez, WaterSmart Software, Inc.