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## Canadian National Household Water Usage Study



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### ABOUT THIS REPORT

- To assess water use behaviours in Canadian households, two waves of an online survey was conducted six months apart using a nationally representative sample
- Respondents estimated end uses of water in categories ranging from laundry to toilet flushing, and from cooking to car wash
- Regions differ in water use – British Columbia households use more water than the rest of the nation
- Income levels are related to water use – households with an annual income at \$50,000 and above use more water than lower income households
- Implications for developing water conservation communications are discussed

## Household Water Use

Based on Environment Canada’s *Water Calculator*, survey respondents estimated their household’s water use in categories ranging from laundry to toilet flushing. Respondents reported using 793 and 738 litres per day per household in wave 1 and 2 respectively. The results are consistent with past findings indicated in Environment Canada’s *2011 Municipal Water Use Report*, such that household water use for average Canadian was 327 and 274 litres per person per day in 2006 and 2009 respectively. Generally speaking, Canada ranks high in the developed world—second only to the United States—in terms of residential water use. It is believed that a general lack of

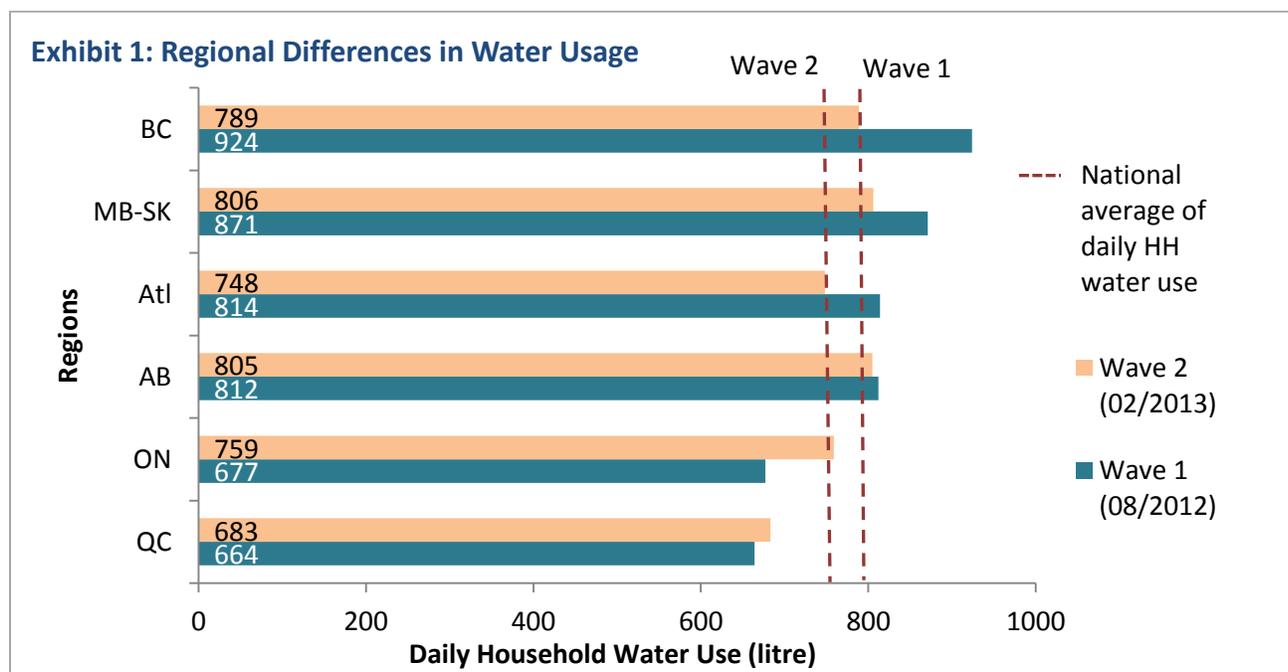
awareness about the pressures placed on Canadian water supplies and commonly held belief of water abundance contribute to Canadians’ high water use.<sup>1</sup>

	Wave 1 (08/2012)	Wave 2 (02/2013)
An average household	793 litres/day, or 254,839 litres/year	753 litres/day, or 250,780 litres/year
An average person	305 litres/day	293 litres/day

## Regional Differences

Regional differences were noted (**Exhibit 1**). Specifically, households in British Columbia, Manitoba, Saskatchewan, and the Atlantic region

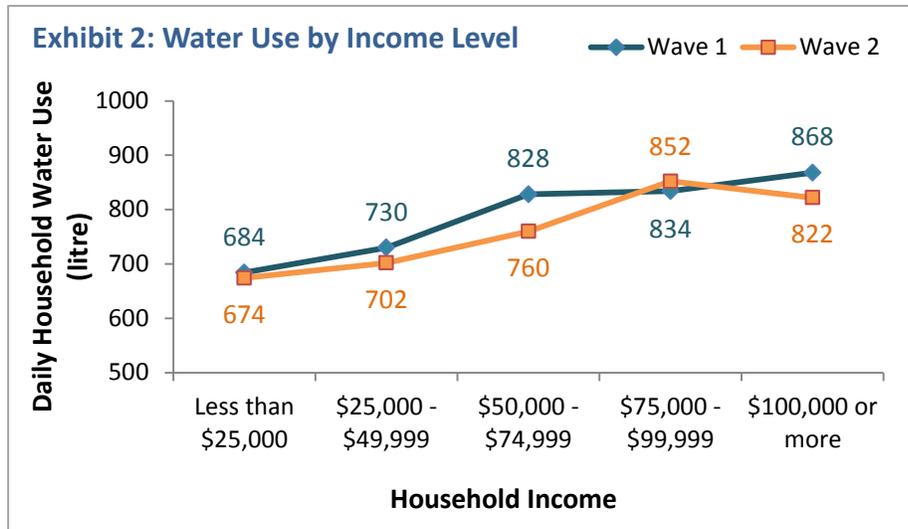
reported water use above the national average in both waves. In contrast, Quebec households showed low level of water use.



<sup>1</sup> Shrubsole, D. & Draper, D. (2007). “On guard for thee? Water (ab)uses and management in Canada. In K. Bakker (Ed.) *Eau Canada: The future of Canada’s water*. UBC Press.

### Income and Water Use

Income levels were found to be related to water use. In general, the more the household income, the greater the household water use even after controlling for household size (**Exhibit 2**).

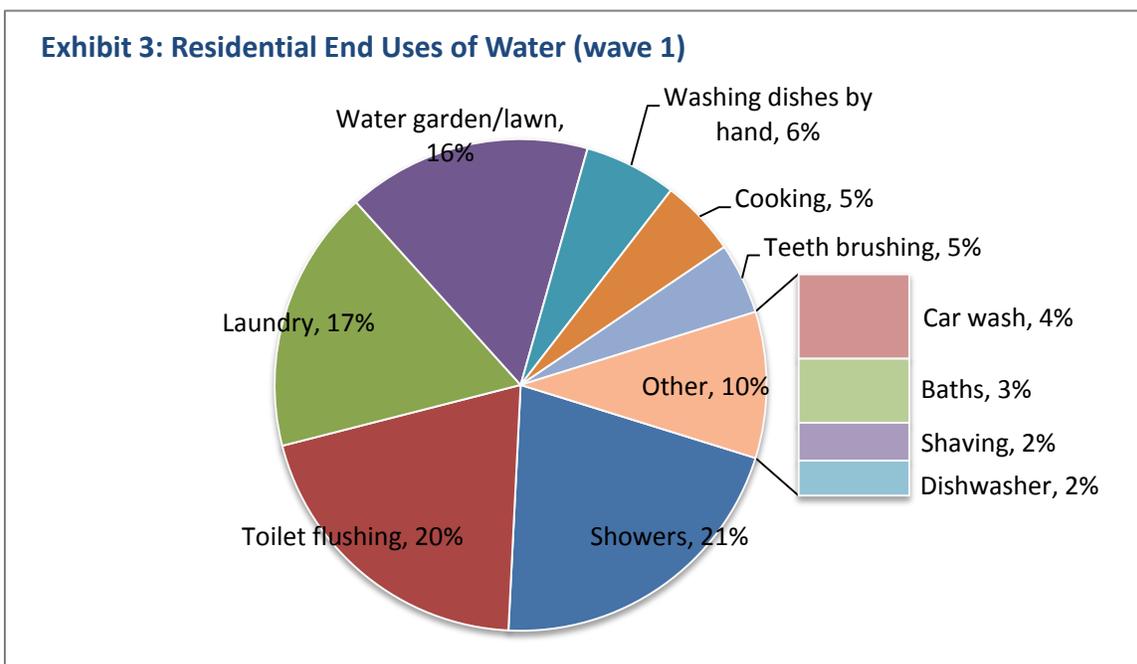


Note: Results were calculated after controlling for the number of people in the household.

### End Uses of Water

In terms of residential end uses of water, showers, toilet flushing, and laundry are the top three categories, accounting for about 60% of all water use (**Exhibit 3**). Difference between the two waves was solely driven by “watering garden/lawn” – 16% of all water use in wave 1

(summer) and 12% in wave 2 (winter). Findings reported here are similar to those in Environment Canada’s *Water Audit*, such that showers and baths (35%), toilet flushing (30%) and laundry (20%) are the three main categories of water uses.



## Conclusion

Findings from this study suggest that intervention programs to encourage wise water usage, conservation, and efficiency may target residents in high-water-use regions as well as those at high income levels. In addition, findings also have implications for message strategy to promote water conservation behaviours: It is often assumed that an effective strategy to persuade

individuals to conserve resources is to focus on the merits of the argument (e.g., “Conserving resources will help save the environment /money, etc.”). Yet increasing evidence has shown that communicating social norms (e.g., “Other people use less water than we do.”) can have greater persuasive power than the traditional merit approach.<sup>2</sup>

## Methodology

Data collection was conducted using the **Voyageur Omnibus**, a nationally syndicated study conducted monthly by Dufferin Research and its partner ZINC Research. The two waves of data were collected during the third week of August, 2012, and the third week of February, 2012. An online panel of Canadians (18 years+) completed the survey. The sample is census representative by region, gender and age.

The regional distribution of the respondents is outlined below:

<b>Region</b>	<b>Wave 1</b>	<b>Wave 2</b>
Atlantic	85	83
Quebec	285	284
Ontario	461	462
Manitoba/Saskatchewan	81	80
Alberta	132	131
British Columbia	158	160
<b>Total Canada</b>	<b>1,202</b>	<b>1,200</b>

## About Dufferin Research

Dufferin Research has been leading the way in the custom online quantitative research since 2000.

Environmental studies are conducted by Anna Frank, a Civil Engineer specializing in Hydrology and Environmental Risk Assessment.

<http://www.dufferinresearch.com/>

<sup>2</sup> Berkowitz, A. D. (2005). An overview of the social norms approach. In L. Lederman & L. Stewart (Eds.), *Changing the culture of college drinking: A socially situated prevention campaign* (pp.143-214). Creskill, NJ: Hampton Press.  
Nolan, J. M., Schultz, P. W., Cialdini, R. B., Goldstein, N. J., & Griskevicius, V. (2008). Normative social influence is underdetected. *Personality and Social Psychology Bulletin*, 34, 913-923.