



## **FACT SHEET: CANADA'S MYTH OF WATER ABUNDANCE**

Many Canadians believe that we hold a quarter of the world's fresh water supply, but this abundance is more myth than reality, as these facts illustrate:

### ***Water Stock vs. Water Supply***

A distinction needs to be made between the stock of water and the water supply. 'Water stock' is the fresh water resident in lakes, which can be thought of as water capital that can only be used once. 'Water supply' refers to flows of renewable fresh water, specifically the amount of water that is replaced in one year through precipitation or aquifer discharge. The flows are analogous to water interest or dividends that occur annually.

- While 20% of fresh water in all of the world's lakes is in Canadian lakes, only 6.5% of the world's renewable water supply is in Canada.
- The total volume of water sitting in fresh water lakes is the equivalent of roughly two years worth of runoff from the world's rivers.
- Who holds the world's biggest water supply? Brazil ranks number one with 12.4%, Russia comes in second with 10.0%, Canada and Indonesia are tied for third place with 6.5%, and the United States and China are tied for a close fourth place at 6.4% of the world's fresh water supply.

### **Water Availability**

Water availability, dependent on when and where water flows, also has a big impact on how much of Canada's water is accessible for human use.

- While Canada (6.5%) and the United States (6.4%) are fairly close in percentage of total fresh water supply, 60% of Canada's fresh water flows North to sub-arctic and arctic regions, while the continental US has 57% of its flows available for use.
- Only 2.6% of the world's fresh water supply is available to southern Canada where most of the population lives. In contrast the continental US has 3.7% of the fresh water supply available for use.
- Canada has a relatively high amount of freshwater available per capita; however this availability of fresh water varies dramatically by region.
- One in four Canadian municipalities experienced water shortages between 1994 and 1999. Shortages were attributed to increases in consumption, drought, or infrastructure constraints.
- Approximately 30% of Canadian households rely on groundwater sources for water, and these groundwater sources must be replenished from the surface. Consequently, changes in river flows, climate or land use can have significant impacts on the water available to individual households.

The myth of water abundance leads Canadians to believe that they have a surplus of freshwater available, and this can result in policy decisions that jeopardise Canada's water resources and environment in the future. Canadians need to think realistically about their water supply, considering local supply and the regional impacts of fresh water diversions, rather than relying on mythic volumes of water to guide their decision-making.

*Sources:* John B. Sprague "Great Wet North? Canada's Myth of Water Abundance", and Dan Shrubsole and Diane Draper "On Guard for Thee? Water (Ab)uses and Management in Canada" in *Eau Canada*, Ed. Karen Bakker, UBC Press: 2007.