

## **WATER CONSERVATION**

### **Background**

Anyone who has ever been without water understands just how valuable it is. Despite all our lakes and rivers, Canada's useable freshwater supply is at risk. In many parts of the country, groundwater is being used faster than nature can renew it.

Canadian households are among the biggest wasters of water in the world. At 326 litres per person per day we consume twice as much as households in the United Kingdom and in France. Only US households consume more.

If we look at the total water used to produce everything we consume, according to the OECD (Organization for Economic Co-operation and Development), water consumption rates in Canada are 4,400 litres of water per day per person! Our water consumption rates are more than twice that of Japan (1,945 litres) and four times more than Sweden (821 litres).

About 64% of our water consumed is used in power production. Power plants use water as a cooling agent. Therefore, when we conserve energy at home, we conserve water. In many cases, the water is returned to its source at higher temperatures, where it can have harmful impacts on the environment.

About 14% of the total is used in manufacturing. Water is so important to most industrial operations that the location of a water source will determine the location of a plant. Unfortunately, in most cases, water withdrawn is returned in a polluted or otherwise altered state. By buying less stuff, we conserve water!

About 12% of water is used by municipalities. Water in municipal systems is generally treated to drinking water standards, but obviously it is used for much more in our homes, by business and for fighting fires. While some water is lost due to evaporation or leaks, most water brought into the city flows out in the form of wastewater and sewage. The extent of sewage treatment varies significantly across Canada.

In the summer months, lawn watering and other outdoor uses can account for up to half of home water usage. In fact, during the summer, municipal water use generally doubles. As water supplies diminish during periods of low rainfall, some municipalities must declare restrictions on lawn and garden watering.

Bathroom use accounts for approximately 65% of water used indoors. Standard toilets manufactured prior to the 80s usually require 15-20L to flush. Those made in the 80s and early 90s use 13L to flush. New toilets use as little as 6L per flush. In addition, as many as 25% of all toilets leak. A toilet that runs on after flushing can leak at a rate of 20-40L per hour. That is 200000 – 400000L per year!

### **What you can do:**

- Never put water down the drain when there may be another use for it such as watering a plant or cleaning.
- Repair leaky faucets by replacing washers. One drop per second, wastes over 10,000L per year.

- Replace large-volume toilets with 6-litre-per-flush models. Avoid flushing the toilet unnecessarily. If everyone in Canada installed a low-flush toilet, we'd save about 25,000 Olympic swimming pools of water each year!
- Dispose of tissues, insects and other such waste in the trash rather than the toilet.
- Take shorter showers. Cut your shower time in half and save up to 300 bathtubs of water a year.
- Replace your showerhead with an ultra-low-flow version.
- Turn off the water while brushing your teeth, shaving or washing your face.
- Brush your teeth first while waiting for water to get hot, then wash or shave after filling the basin.
- When washing dishes by hand, fill one sink or basin with soapy water. Rinse into the washing-up water.
- Running the dishwasher when it's full will save up to 10,000 litres of water a year. To go even further, choose the short cycle or install a high-efficiency model
- Store drinking water in the refrigerator rather than letting the tap run cold.
- Do not use running water to thaw meat or other frozen foods. Defrost food overnight in the refrigerator or by using the defrost setting on your microwave.
- If you must water the lawn or garden, do so during the early morning hours when temperatures and wind speed are the lowest. This reduces losses from evaporation.
- Use a rain barrel and get your garden water for free'.
- Add organic matter (such as compost) to your lawn and garden soil so it will retain moisture better and provide slow-release fertilizer.
- Mulch the surface of flower and vegetable beds for the same reason. Mulching also helps to control weeds that compete with cultivated plants for water.
- Raise the lawn mower blade to at least three inches. A lawn cut higher encourages grass roots to grow deeper, and shades the root system
- Leave the lawn clippings to provide free fertilizer and additional moisture.
- When washing your car, you can save as much as 150 gallons of water if you turn off the hose between washing and rinsing. Use a bucket of soapy water and a trigger nozzle instead.
- When buying a new washing machine, get the front-loading, energy star model.

#### **Resources and Links:**

[http://www.ec.gc.ca/Water/en/info/pubs/nttw/e\\_nttwi.htm](http://www.ec.gc.ca/Water/en/info/pubs/nttw/e_nttwi.htm)

[http://www.on.ec.gc.ca/reseau/watertips/watertips\\_e.html](http://www.on.ec.gc.ca/reseau/watertips/watertips_e.html)

<http://www.americanstandard.ca/company/pressRelease.php?id=32>

[http://www.unilever.com/sustainability/casestudies/water/canadaeducatingconsumer\\_saboutwaterconservation.aspx](http://www.unilever.com/sustainability/casestudies/water/canadaeducatingconsumer_saboutwaterconservation.aspx)

<http://waterdropblog.wordpress.com/category/water-news-canada/>

[http://www.cmhc-schl.gc.ca/en/co/maho/la/la\\_006.cfm](http://www.cmhc-schl.gc.ca/en/co/maho/la/la_006.cfm)

[http://www.canadianliving.com/life/green\\_living/man\\_on\\_water\\_saving\\_a\\_depleting\\_resource\\_4.php](http://www.canadianliving.com/life/green_living/man_on_water_saving_a_depleting_resource_4.php)