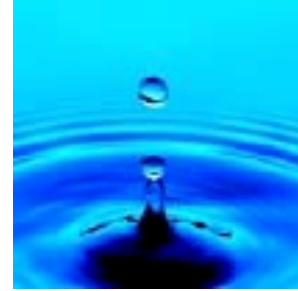


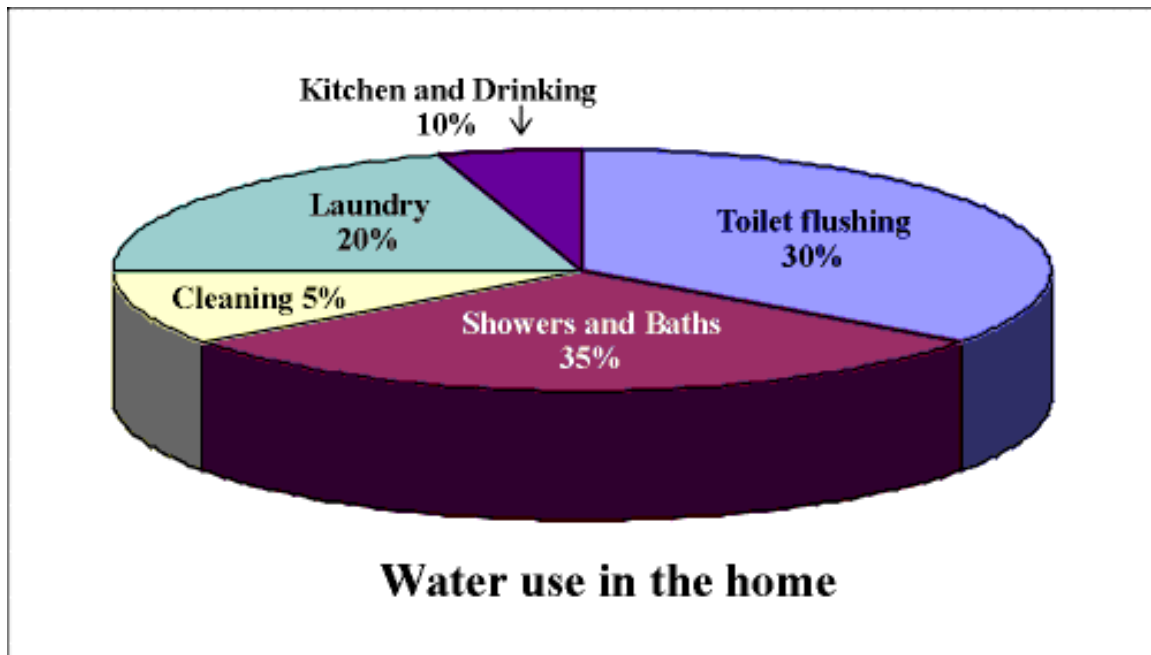
## Save Water and Reduce Smog

Since the Walkerton tragedy, we've all been more aware of water pollution issues. There is another aspect of water-related pollution that is often overlooked - the air pollution caused by heating and pumping water. This is a huge contributor to smog and the greenhouse gases that cause global warming!

Pumping water takes a lot of power. It usually happens quietly and remotely, so we are rarely aware of it. If your house is on a well, it has to be pumped up from deep below the ground. Municipal water has to be pumped from Lake Ontario or town wells, then up water towers. On average, it takes about 1 kilowatt-hour (kWh) of electricity to pump 1 tonne (1000 Litres) of water to a home in Caledon. As we know, electricity generation is a major cause of smog and greenhouse gases in Ontario.



The average Canadian uses 127 tonnes of water a year. In comparison, the average American uses 155 tonnes of water annually; the average Briton uses 73 tonnes, and the average Kenyan 1 tonne. In Caledon, the amount of electricity required to pump water to a home is equivalent to 2 weeks worth of the family's annual electricity usage. For a private well, the homeowner pays the bill; for a municipal system, the taxpayers bear the cost. On top of that, heating water uses a huge amount of energy - on average, 15-20% of total home energy use. To learn more, visit: <http://www.ec.gc.ca/water>



Here are some steps you can take to help reduce water use, and save energy and money:

- 1) Consider using cold water for quick hand washes, rinsing dishes and other tasks. In our house, to get a splash of warm water from our upstairs bathroom faucet, we need to run the tap awhile. Four litres, or 16 cups, of cooled-down hot water comes out of the pipes before the fresh hot water comes out, and all of this must be replaced from the hot water tank. Over 90% of the hot water is wasted. Imagine how much time and energy it would take to heat this much water on your stove!

- 2) Install low-flow showerheads. These inexpensive devices save 51 tonnes of hot water per year for a family of four, which means saving 2000 kWh or \$140 per year in energy. Taking an 8 minute daily shower instead of a bath can also save you \$140 per year.
- 3) Change old inefficient toilets for new water-saving models. A family of four can save 114 tonnes of water annually.
- 4) Fix your leaks! A tap leaking 1 drop per second can waste 10 tonnes of water a year, and a toilet that keeps running due to a leaky flap can waste an astounding 200 tonnes a year! In places where water is metered, the homeowner pays directly for this waste - \$160 a year in Toronto.
- 5) Use a rain barrel to water your garden. You can save 1 tonne of water a season. You can get 220 L rain barrels made from recycled materials by Citizens for a Clean Caledon. They are available at the Community Recycling Centre for \$40 from April to October.
- 6) Lower the thermostat on your water heater. If you lower your thermostat from 60C to 50C, you reduce the chance of being scalded, and save 10% of your water-heating energy consumption, or \$35 per year. Some less efficient dishwashers may require a higher water temperature.
- 7) There are also large savings to be made in doing laundry, which I will cover in a future article.

### ***The Bonus:***

You can save \$175 per year on water heating if you turn your water heater thermostat down and change your showerheads, or trade a daily shower for a bath. You can save another \$8 of electricity per year if you change to efficient toilets, and \$15 if you fix a leaky one. (Note that these are just the electricity savings and do not consider the large potential water cost savings, if you are metered, nor the environmental benefits of water conservation.)

### ***The Environmental Bonus:***

If one of every 10 households in Caledon changed these plumbing fixtures, we would save enough power to run 280 households and prevent 3,000 tonnes of Carbon Dioxide emissions, as well as significant Sulphur Dioxide, Nitrogen Oxide and Mercury pollution.

For more information about this or other topics in the Caledon Clean Air Clean Energy Program, you can reach us at [greenenergy@woodrising.com](mailto:greenenergy@woodrising.com) or 519-927-0548, or visit <http://www.woodrising.com/cca/stepup.htm>



**Step Up To Kyoto. Future generations will thank-you a tonne.**