

## Water Consumption Guide

A sudden rise in your water bill may be due to a number of reasons including:

- Plumbing leaks in toilets;
- Plumbing leaks in taps;
- An increase in the number of people living in the house resulting in greater water usage;
- A change in the way water is used, ie. You washed the car three times last month. etc;
- Doing many loads of laundry;
- A dry hot summer, resulting in higher consumption.

If you feel your water bill is unusually high:

- verify the reading on your bill versus the reading on the water meter. If the reading on the meter is moving higher without any known usage, then you can do the following to check for leaks:
- you can buy the "blue stuff" that you put in your toilets to clean/disinfect (use as directed on the package) i.e. they put it in each of their toilets, in the tank(s); do not to flush for a minimum of 3 hrs. If after the 3 hrs, there is blue in the toilet bowl, then you have a leak and should contact a plumber. If there isn't any blue in the bowl, then;
- take a reading before you go to bed and again when you wake up in the morning. If the reading is different, then you have a leak and should contact a plumber. If the readings are the same, then you have the option to have the meter tested and if there is nothing found to be wrong with the meter, you will be charged.

## Water Consumption

- Bath: A full tub is about 164 litres.
- Shower: 9-11 litres per minute. Old shower heads use as much as 18.2 litres per minute.
- Teeth Brushing: <4.5 litres, especially if water is turned off while brushing. Newer bath faucets use about 4.5 litres per minute, whereas older models use over 9 litres.
- Hands/Face Washing: 4.5 litres
- Face/Leg Shaving: 4.5 litres
- Dishwasher: 91 litres/load, depending of efficiency of dishwasher
- Dishwashing by Hand: 18.2 litres/minute for old faucets.. Newer kitchen faucets use about 4.5-9 litres per minutes.
- Clothes Washer: 114 litres/load for newer washers. Older models use about 182 litres per load.
- Toilet Flush: 13.6 litres for older models. Most all new toilets use 5.5 – 7.3 litres per flush.
- Glass of Water: 1/4 litre per glass
- Outdoor Watering: 9 litres/minute

## Water Conservation in the Home

- Check faucets and pipes for leaks: A small drip from a worn faucet washer can waste 20 gallons of water per day. Larger leaks can waste hundreds of gallons.
- Don't use the toilet as an ashtray or wastebasket: Every time you flush a cigarette butt, facial tissue or other small bit of trash, six to fourteen litres of water is wasted.
- Check your toilets for leaks: Put a little food coloring in your toilet tank. If, without flushing, the color begins to appear in the bowl within 30 minutes, you have a leak that should be repaired immediately. Most replacement parts are inexpensive and easy to install.
- Use your water meter to check for hidden water leaks: Read the house water meter before and after a two-hour period when no water is being used. If the meter does not read exactly the same, there is a leak.
- Install water-saving shower heads and low-flow faucet aerators: Inexpensive water-saving low-flow shower heads or restrictors are easy for the homeowner to install. Also, long, hot showers can use five to ten gallons every unneeded minute. Limit your showers to the time it takes to soap up, wash down and rinse off. "Low-flow" means it uses less than 2.5 gallons per minute. Also, all household faucets should be fit with aerators. This single best home water conservation method is also the cheapest!
- Put plastic bottles or float booster in your toilet tank: To cut down on water waste, put an inch or two of sand or pebbles inside each of two plastic bottles to weigh them down. Fill the bottles with water, screw the lids on, and put them in your toilet tank, safely away from the operating mechanisms. Or, buy an inexpensive tank ball or float booster. This may save ten or more gallons of water per day. Be sure at least 3 gallons of water remain in the tank so it will flush properly. If there is not enough water to get a proper flush, users will hold the lever down too long or do multiple flushes to get rid of waste. Two flushings at 6.4 litres is worse than a single 9.1 litre flush. A better suggestion would be to buy an adjustable toilet flapper that allow for adjustment of their per flush use. Then the user can adjust the flush rate to the minimum per flush setting that achieves a single good flush each time.
- For new installations, consider buying "low flush" toilets, which use 9 litres per flush instead of the usual 23 litres.
- Replacing an 18 liter per flush toilet with an ultra-low volume (ULV) 6 liter flush model represents a 70% savings in water flushed and will cut indoor water use by about 30%.
- Insulate your water pipes: It's easy and inexpensive to insulate your water pipes with pre-slit foam pipe insulation. You'll get hot water faster plus avoid wasting water while it heats up.
- Take shorter showers: One way to cut down on water use is to turn off the shower after soaping up, then turn it back on to rinse. A four-minute shower uses approximately 5 gallons of water.
- Turn off the water after you wet your toothbrush: There is no need to keep the water running while brushing your teeth. Just wet your brush and fill a glass for mouth rinsing.
- Rinse your razor in the sink: Fill the sink with a few inches of warm water. This will rinse your razor just as well as running water, with far less waste of water.
- Use your dishwasher and clothes washer for only full loads: Automatic dishwashers and clothes washers should be fully loaded for optimum water conservation. Most makers of dishwashing soap recommend not pre-rinsing dishes which is a big water savings. With clothes washers, avoid the permanent press cycle, which uses an added 20 liters for

the extra rinse. For partial loads, adjust water levels to match the size of the load. Replace old clothes washers. New Energy Star rated washers use 35 - 50% less water and 50% less energy per load. If you're in the market for a new clothes washer, consider buying a water-saving frontload washer.

- Minimize use of kitchen sink garbage disposal units: In-sink 'garburators' require lots of water to operate properly, and also add considerably to the volume of solids in a septic tank which can lead to maintenance problems. Start a compost pile as an alternate method of disposing food waste.
- When washing dishes by hand, don't leave the water running for rinsing: If you have a double-basin, fill one with soapy water and one with rinse water. If you have a single-basin sink, gather washed dishes in a dish rack and rinse them with a spray device or a panful of hot water. Dual-swivel aerators are available to make this easier. If using a dishwasher, there is usually no need to pre-rinse the dishes.
- Don't let the faucet run while you clean vegetables: Just rinse them in a stoppered sink or a pan of clean water. Use a dual-setting aerator.
- Keep a bottle of drinking water in the fridge: Running tap water to cool it off for drinking water is wasteful. Store drinking water in the fridge in a safe drinking bottle. If you are filling water bottles to bring along on outdoor hikes, consider buying personal water filter which enables users to drink water safely from rivers or lakes or any available body of water.

## Water Conservation in the Yard and Garden

- Plant drought-resistant lawns, shrubs and plants: If you are planting a new lawn, or over-seeding an existing lawn, use drought-resistant grasses such as the new "Eco-Lawn". Many beautiful shrubs and plants thrive with far less watering than other species. Replace herbaceous perennial borders with native plants. Native plants will use less water and be more resistant to local plant diseases. Consider applying the principles of xeriscape for a low-maintenance, drought resistant yard. Plant slopes with plants that will retain water and help reduce runoff. Group plants according to their watering needs.
- Put a layer of mulch around trees and plants: Mulch will slow evaporation of moisture while discouraging weed growth. Adding 2 - 4 inches of organic material such as compost or bark mulch will increase the ability of the soil to retain moisture. Press the mulch down around the drip-line of each plant to form a slight depression which will prevent or minimize water runoff.
- Don't water the gutter: Position your sprinklers so water lands on the lawn or garden, not on paved areas. Also, avoid watering on windy days.
- Water your lawn only when it needs it: A good way to see if your lawn needs watering is to step on the grass. If it springs back up when you move, it doesn't need water. If it stays flat, the lawn is ready for watering. Letting the grass grow taller (to 3") will also promote water retention in the soil.

Most lawns only need about 1" of water each week. During dry spells, you can stop watering altogether and the lawn will go brown and dormant. Once cooler weather arrives, the morning dew and rainfall will bring the lawn back to its usual vigor. This may result in a brown summer lawn, but it saves a lot of water.

- Deep-soak your lawn: When watering the lawn, do it long enough for the moisture to soak down to the roots where it will do the most good. A light sprinkling can evaporate quickly and tends to encourage shallow root systems. Put an empty tuna can on your lawn - when it's full, you've watered about the right amount. Visit our natural lawn care page for more information.
- Water during the early parts of the day; avoid watering when it's windy: Early morning is generally better than dusk since it helps prevent the growth of fungus. Early watering, and late watering, also reduce water loss to evaporation. Watering early in the day is also the best defense against slugs and other garden pests. Try not to water when it's windy - wind can blow sprinklers off target and speed evaporation.
- Add organic matter and use efficient watering systems for shrubs, flower beds and lawns: Adding organic material to your soil will help increase its absorption and water retention. Areas which are already planted can be 'top dressed' with compost or organic matter. You can greatly reduce the amount of water used for shrubs, beds and lawns by: the strategic placement of soaker hoses, installing a rain barrel water catchment system, installing a simple drip-irrigation system. Avoid over-watering plants and shrubs, as this can actually diminish plant health and cause yellowing of the leaves. When hand watering, use a variable spray nozzle for targeted watering.
- Don't run the hose while washing your car: Clean the car using a pail of soapy water. Use the hose only for rinsing - this simple practice can save as much as 682 litres when washing a car. Use a spray nozzle when
- Rinsing for more efficient use of water. Better yet, use a waterless car washing system; there are several brands, which are now on the market.
- Use a broom, not a hose, to clean driveways and sidewalks
- Check for leaks in pipes, hoses, faucets and couplings: Leaks outside the house may not seem as bad since they're not as visible. But they can be just as wasteful as leaks indoors. Check frequently to keep them drip-free. Use hose washers at spigots and hose connections to eliminate leaks.
- Water conservation comes naturally when everyone in the family is aware of its importance, and parents take the time to teach children some of the simple water- saving methods around the home which can make a big difference.

## Water Conservation Summary

Saving water at home does not require any significant cost outlay. Although there are water-saving appliances and water conservation systems such as rain barrels, drip irrigation and on-demand water heaters which are more expensive, the bulk of water saving methods can be achieved at little cost. For example, 75% of water used indoors is in the bathroom, and 25% of this is for the toilet. The average toilet uses 18.2 litres per flush (lpf). You can invest in a ULF (ultra-low flush) toilet which will use only 9.1 lpf. But you can also install a simple tank bank, costing about \$6, which will save 3.6 lpf. This saves 40% of what you would save with the ULF toilet. Using simple methods like tank banks, low-flow showerheads and faucet aerators you can retrofit your home for under \$75. By using water-saving features you can reduce your in-home water use by 35%. This means the average household, which uses 591,000 litres per year, could save 200,000 litres of water per year. On a daily basis, the average household, using 1,600 litres

per day, could save 568 litres of water per day. The average individual, currently using 270 litres per day, could save 114 litres of water per day.

When buying low-flow aerators, be sure to read the label for the actual 'lpm' (litres per minute) rating. Often, the big box retailers promote "low-flow" which are rated at 11.4 lpm, which is at the top of the low-flow spectrum. This may be needed for the kitchen sink, but we find that a 7 lpm aerator works fine for the bathroom sink and most water outlets, delivering the same spray force in a comfortable, soft stream. Hardware stores carry a full range of low-flow aerators and showerheads.

Finally, it should be noted that installing low-flow aerators, showerheads, tank banks and other water-saving devices usually is a very simple operation which can be done by the homeowner and does not even require the use of tools. Water conservation at home is one of the easiest measures to put in place, and saving water should become part of everyday family practice.