

# conserving water in your home



## Conserving water in the rural home will:

- ◆ improve septic system function
- ◆ conserve energy use (pumping, softening, treating, heating water)
- ◆ protect water resources for the future.

## Protect your septic system from too much water

Too much water flowing into the septic system doesn't allow solids to settle in the tank. Excess water flowing into the leaching bed doesn't allow it to rest and absorb oxygen, which is necessary in the break down of bacteria and pathogens. As a consequence, pollutants can be carried into ground and surface waters. One study found that too much water flow saturating the leaching bed caused 75 per cent of bed failures.

## Avoid excess water in your tank and leaching bed

- ◆ Spread out showering, bathing and clothes washing.
- ◆ Reduce water use for a few days before a large number of guests are expected. If you are planning a party, consider renting a portable toilet as your septic was not designed to manage the water flow of that many people.
- ◆ Direct downspouts and the effluent from air conditioners and dehumidifiers away from the septic tank and bed.
- ◆ Grade land so rain water flows away from the bed.
- ◆ Direct water softener brine into a Class 2 leaching pit or the sump hole in your basement.

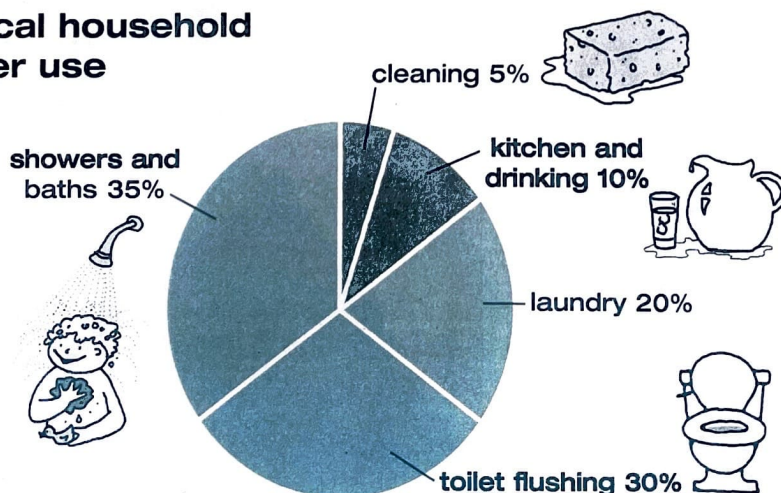
*"Because our water use almost always leads to some degree of deterioration in water quality, the less water we withdraw, the less we upset the natural balance of our ecosystem, the less we have to spend to restore the water quality to an acceptable standard for public use."*

**Environment Canada:  
Water Conservation -  
Every Drop Counts**

## Did you know?

Canadians are some of the world's most wasteful water users. Each of us uses an average 326 litres of water a day. This is more than twice what Europeans use.

## Typical household water use



Source: Environment Canada

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# here's how to **cut back** on your **water use**

## **Toilet**

The toilet is the single biggest user of water. Each of us flushes about five times a day.

Replace a toilet that is older than 10 years with a new ultra-low-flush toilet and reduce water use by 15 - 20 per cent.

Retrofit an older toilet to use less water with a specially designed flapper valve that closes more quickly, a dual-flush device, a toilet dam or a tank insert that displaces water. (Don't use a bare brick or rock as dissolved particles can clog pipes and septic.)

Follow an old ditty: "When it's yellow, let it mellow; when it's brown, flush it down."

Repair toilet leaks promptly. Check for a leak by putting a few drops of food colouring in the tank. Without flushing, see if the food colouring moves from the tank into the bowl. If it does, you have a leak. Check for leaks around the base of the toilet and repair promptly.

Ensure that the float ball is properly adjusted so the tank water level does not exceed the height of the overflow tube. Periodically examine whether the plunge ball and flapper valve in the tank are properly "seated" and replace parts when necessary.

Consider replacing a water toilet with a composting toilet and reduce total water use by 30 per cent.

## **Shower**

Install low-flow shower heads or adjustable flow-reducer devices, preferably with shut-off buttons, and save 25 per cent of shower water and about \$100 a year in heating costs.

Short showers use less water than baths.

Turn taps off snugly so they don't drip.

Promptly repair leaks.

## **Sinks**

Install an aerator and or a water flow-reducer attachment on your faucets.

Turn taps off snugly so they don't drip.

Promptly repair leaks in and around your taps. (One leak can waste several thousand litres of water each year, enough to fill a swimming pool or stress out your leaching bed.)

Use a partly filled sink rather than running water for shaving or washing hands.

Turn off water between wetting your toothbrush and rinsing.

## **Kitchen sinks**

Put pipe wrap on basement hot water pipes so heated water arrives at your tap more quickly.

When hand-washing dishes, don't run water continuously.

Wash dishes in a partly filled sink and rinse in a second partly filled sink or with the spray attachment.

Wash fruits and vegetables in a partly filled sink, not under running water, and rinse quickly under the tap.

In summer, wash dishes, fruits and vegetables in a basin and put this greywater on trees and bushes.

In winter, try using used dishwater on house plants. Don't store used water.

## **Dishwasher**

Wash only full loads in the dishwasher, use the short or water/energy conserver cycle and let dishes dry on their own. (Following these practices can mean using less water than hand washing.)

## **Stove**

Steam vegetables in a little water or boil in just enough water to cover them, using a tight fitting lid.

## **Refrigerator**

Keep a pitcher of chilled water in the fridge to avoid waiting for cold water to arrive at your tap.

## **Laundry**

Wash only full loads in the washing machine.

Use suds-saver, short cycle and load size features.

Promptly repair any leaks.

Select a front-loading washer the next time you replace your machine. They generally use much less water than top-loading machines.

Spread your laundry out over the week. Consider doing one load a day or two, instead of several loads on the same day.

*With information from and acknowledgement to:*

Environment Canada: A Primer on Fresh Water; Water Conservation - Every Drop Counts; Water, No Time to Waste: A Consumer's Guide to Water Conservation

Ontario New Home Warranty Program: A New Homeowner's Guide to Septic Systems

Ottawa-Carleton: How Well is Your Well? Homeowner's Guide to Safe Wells and Septic Systems

# water filter systems

Although water quality problems may be ameliorated by improving septic function and well construction and management on your property, some contaminants may be coming from sources that are beyond your ability to control or ameliorate. In these cases it may be necessary to filter your water and/or buy drinking water from a reliable source.




## When considering a water filter system for your residence you need to determine:

- ◆ what undesirable elements are present in your water
- ◆ what type of water filter(s) will remove these elements

## How to determine your water problems:

- ◆ conduct your own observations and lab tests
- ◆ consider former land-uses on your property and those near-by for clues on what to test for
- ◆ access free tests for e. coli and total coliforms at the nearest public health unit
- ◆ use the Baseline Water Well Test (see brochure) or a local laboratory to test for contaminants such as VOCs, pesticides, oils, and other fuels

for more  
**information**  
about  
**selecting**  
the correct  
**water filter**  
see: **'How Well  
is Your  
Well.'** 

Type of water filter	Should remove	Should meet standard
<b>Carbon and granular activated charcoal filters</b> (Pitcher style, tap-mounted, or under-sink.)	Chlorine and organic matter. <i>Note:</i> If water is contaminated with bacteria, the bacteria can be trapped in the filter and multiply.	ANSI/NSF 42 for taste, odour, colour
<b>Carbon and granular activated charcoal filters</b> (Large scale systems.) Often used as pre-treatment for reverse osmosis and water softening systems.	Volatile organic chemicals such as benzene, trichloroethylene, carbon tetrachloride, toluene, xylene.	ANSI/NSF 53 for carbon and granular activated charcoal filters that remove contaminants that can affect human health.
<b>Cation exchange water softeners</b>	Calcium and magnesium "hardness"	ANSI/NSF 44 softeners using sodium or potassium chloride to remove calcium and magnesium ions from water

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Type of water filter	Should remove	Should meet standard
<b>Reverse osmosis</b> Often requires pretreatment by filtration or softening. Much water is wasted.	Minerals	ANSI/NSF 58. Most systems incorporate pre- and post-filters along with the membrane itself; these additional filters may be certified separately under the requirements of Standards 42 and/or 53 as applicable.
<b>Ultraviolet light</b>	Viruses, bacteria (incl. E. coli 0157:H7), and intestinal protozoa such as Cryptosporidium and Giardia.	ANSI/NSF 55. Class A System disinfects microbiologically contaminated water that meets all other public health standards. Not for water contaminated with raw sewage. Class B System is a bactericidal treatment for public drinking water for non-pathogenic or nuisance organisms only.
<b>Distillation</b> Heats water to boiling, collects water vapour and condenses vapour to water leaving behind minerals and heavy metals.	Bacteria, viruses, intestinal protozoa, minerals, heavy metals. <i>Note: Contaminants that convert readily into gases, such as volatile organic chemicals, may be carried over with the water vapour and remain in distilled water.</i>	ANSI/NSF 62.



### Certification

Health Canada recommends that filters should be certified. Filters that provide aesthetic (taste, odour, colour) improvements only may not be certified. The following are authorized by the Standards Council of Canada to certify water filtering devices:  
 CSA International (ANSI standards 42 and 53 only): [www.csa-international.org](http://www.csa-international.org)  
 NSF International (All six ANSI/NSF standards): [www.nsf.org](http://www.nsf.org)  
 Underwriters Laboratories (All six ANSI/NSF standards): [www.ul.com](http://www.ul.com)

### Further information

Licensed Drinking Water Testing Laboratories in Ontario,  
[www.ene.gov.on.ca/envision/water/sdwa/licensedlabs.htm](http://www.ene.gov.on.ca/envision/water/sdwa/licensedlabs.htm)  
 Health Canada, [www.hc-sc.gc.ca/ewh-semt/water-eau/index\\_e.html](http://www.hc-sc.gc.ca/ewh-semt/water-eau/index_e.html)  
 NSF - National Sanitation Foundation International - Lists the products it has certified according to standards: [www.nsf.org](http://www.nsf.org)  
 Private site that evaluates contaminants, health effects of contaminants, particularly on children, and water filters: [www.cyber-nook.com/water/index.html](http://www.cyber-nook.com/water/index.html)  
 U.S. Water Quality Association - Interactive, water contaminants problem solver:  
[www.wqa.org](http://www.wqa.org)

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