

## Water and Wastewater

Many Canadians take fresh and abundant water for granted, but throughout much of the world, it is an increasingly scarce resource. In this section, we will share some simple strategies for reducing your reliance on fresh water for purposes that are well suited for "grey water" or rainwater instead.

### Quick Start



Establish how much water your enterprise is using now. Check past bills or monitor your water meter to get a handle on consumption and determine your best opportunities for saving water and money. The largest potential sources of waste include toilets, showers, washing machines, kitchens, swimming pools and landscaping. Consider installing meters in each of these operating areas to pinpoint water consumption. This will help you figure out where you can realize your biggest savings.

### About Grey-Water Management Systems

A grey-water management system collects wastewater from laundry, kitchens and/or baths, and reuses it for flushing toilets or outdoor irrigation.

Benefits of reusing grey water:

- ◆ Reduces the use of fresh/potable water by up to 30%
- ◆ Can save you money on water costs
- ◆ Lessens strain on septic systems and water-treatment plants
- ◆ Reduces the use of energy and chemicals in water purification.

Check online for easy-to-install, micro grey-water management systems, which recycle, filter and store bath and shower water for reuse in toilets.

- ◆ Implement a program in which guests are allowed to choose whether to have their linens and towels replaced on a less-frequent basis. Post a discreet message in rooms explaining the program and ensure housekeeping staff understands and adheres to guests' wishes.
- ◆ Check toilet tanks for leaks. One leak can set you back \$100 a year and waste as much as 28 bathtubs full of water every month. To check, place a few drops of food colouring in the tank and wait 20 minutes. If the water in the bowl changes colour, you have a leak.
- ◆ Install low-flow or dual-flush toilets whenever possible, or place plastic pop bottles filled with sand in the toilet tanks.
- ◆ Use a front-loading washing machine, which reduces the amount of water required. Run only full loads in the washing machine and dishwasher.
- ◆ Use automatic water taps to reduce the amount of water used.

## Scenario: Stemming the Leaks in Rain City

Simon's Community Market and Restaurant prepares and sells organic food and produce to local-food enthusiasts in Vancouver, British Columbia. Dan, the owner, works hard to promote sustainable agricultural practices through his business, which is located in an older building near the city's famous Granville Island district. But he also wants to further reduce his operational impact by implementing a number of water-saving initiatives.

Before making any decisions, the restaurateur requests a water audit from the City of Vancouver. The audit reveals that Dan is wasting a great deal of water via eight older toilets that date to the building's construction in the 1950s. Every time a staff member or customer trips a flush lever, 18 L of water head down the drain. The auditor also identifies a variety of other water-reduction tips and techniques that, if implemented, would save Dan a great deal of potable water.

With the audit report in hand, Dan's partners and employees sit down to discuss priorities and next steps.

The Simon's team decides to begin with the easy and low-cost conservation opportunities identified in the report. It installs faucet aerators, which can reduce water consumption by 40%, on all kitchen and bathroom sinks.

Next, it examines the toilets. Since outright replacement of the old 18-L fixtures would require a significant upfront investment, the business decides to move gradually. It fixes leaks and installs dams in each tank to temporarily reduce the water used with each flush. Just placing the toilet dams in each tank reduces the quantity of water used by four L. The team also adds a regular check for toilet and tap leaks as part of its maintenance calendar.

Simon's Market and Restaurant is saving to buy and install ultra-low-volume toilets, which use only six L per flush. Once the new fixtures are installed, the company will be using 190,000 L less water a year. Other long-term goals include a high-efficiency dishwasher, which would not only reduce the amount of water used but also reduce energy costs through decreased hot-water consumption. The eatery commits to documenting and publicizing its progress, so customers can learn about water-saving initiatives. Dan's commitment may even prompt his patrons to rethink how much water they use in a day.