

Green Cottager

Quick Reference Guide

Using Water Wisely

quick reference guide

In General

- Turn taps off tightly so they do not drip.
- Repair tap, faucet, pipe and hose leaks promptly.
- Plant native drought-tolerant plants in areas you normally water around your house and cottage to reduce outdoor water use and provide habitat for birds and butterflies.

In the Kitchen

- Only use a dishwasher when full; use the cycle that requires the least water.
- Hand-wash dishes in a partly filled sink. Instead of using running water to rinse dishes, fill a separate sink or use the faucet spray attachment.
- When rinsing fruits and veggies, put a basin below the faucet and recycle the captured water for thirsty plants or sluicing off the deck chairs.
- Keep a container of drinking water in the refrigerator instead of running tap water until it is cold.

In the Bathroom

- Check for toilet tank leaks and repair promptly. Toilets use the largest proportion of household water. To test for leaks put a few drops of food colouring into the tank. If the colouring appears in the bowl without being flushed, you have a leak.
- Use toilets only for their intended purpose. Do not flush paper towels, cotton swabs or cigarette butts. Never flush paints, solvents, pesticides, or other chemicals since these are hazardous to the aquatic environment - the eventual recipient of all those toilet flushes.
- Flush less. A toilet dam or displacement device in the tank reduces the amount of water being flushed. The toilet dam is a simple tool that holds back water from the flapper valve. Displacement devices can be DIY – set a full plastic water bottle in the tank (don't use a brick; it can disintegrate, ruining the valves).
- Water efficient six litre or dual flush toilets are available and are practical for home and cottage use. Check the **Canadian Water and Wastewater Association** website at www.cwwa.ca for the latest list of water efficient toilets that work well.
- Composting toilets that meet **National Sanitation Foundation** (NSF) international standards are another option.
- Use a partially filled sink rather than running water continuously while washing your hands. Brushing your teeth for two minutes with the tap running loses about 11 litres of water down the drain; a mug of water for brushing and rinsing does the job with much less waste.
- Short showers use less water than full baths. For bathing, fill only half the tub with water.
- Install a low-flow showerhead, especially if long-showering teenagers hang out at your cottage. A low-flow aerator can cut the water flow by 50 per cent without lessening the spray.

Laundry

- Front loading washing machines tend to be more water and energy efficient.
- Only use the washing machine when full; use the cycle that requires the least water.
- Adjust the water level if smaller washes are necessary. If you have a septic system, limit the number of loads per day to avoid overloading it.

Septic Systems Safe if Used Properly

- Have your septic tank pumped out regularly by a qualified hauler. Keep a sketch of the location of your septic system handy for service and repairs.
- Do not drive or park vehicles or erect buildings or decks over the system.
- Plant grass, trees and shrubs downhill from your system - these plants will absorb nutrients, preventing them from reaching surface waters.
- Practice water conservation to keep from overloading your system. Install water-saving devices, such as low-flush toilets and low-flow faucet aerators.
- If you're having a huge crowd to the cottage, say for a wedding, rent a porta-potty instead of stressing the septic system.
- Dispose of oil, grease and cigarette butts in the garbage and place vegetable scraps and coffee grinds in your compost. Solid material will clog the field, resulting in costly repairs.
- Keep paint, paint thinners, drain cleaners, pesticides and other chemicals out of your septic system to protect beneficial microorganisms that break down wastes.
- Use only environmentally sensitive products in your home. Locate your septic field at least 15 metres from a well and 30 metres from an uncased well.
- Harmful bacteria, viruses, and nitrates from your field could render your drinking water unfit for consumption. Have your drinking water tested if in doubt.
- If your system shows symptoms of failure call a qualified service contractor immediately. This will save you money in the long run and protect the environment.

Shoreline Erosion Prevention

- Maintain or enhance the vegetative zone. Allow natural vegetation to grow or plant more trees and shrubs with deep root systems along your shoreline. This will slow down nutrient rich runoff and help prevent shoreline and bank erosion. View the www.livingbywater.ca or the book **On the Living Edge** for more information.
- Hook a rainbarrel up to your eavestroughs. By catching rainfall before it hits the ground, you can greatly reduce runoff. (For those who only associate runoff with summer rainfall, it also comes in winter and spring, in the form of snowmelt.) Even temporarily storing rain in a barrel until after a storm lets up helps reduce erosion. Newer rainbarrels are designed to keep out mosquitoes so the water won't become a breeding pool for them.
- Leave large boulders along your shoreline to stabilize it and provide habitat for terrestrial and aquatic organisms, like turtles, waterfowl and fish.
- Re-establish vegetation on steep slopes by holding groundcover seedlings in place with mulch and loose-weave mesh or burlap.
- Build steps or a ramp for access between the top and bottom of the bank.
- Driftwood and fallen trees at the shoreline provide hiding places, feeding grounds, and spawning areas for lots of aquatic creatures, such as fish, frogs, and salamanders. They can also act as a breakwater to prevent erosion.
- Don't strip the entire waterfront of its aquatic vegetation, which holds sediment in place and provides critical food and shelter for many water dwellers, from bass to water striders. Instead, designate a small activity area for swimming, preferably less than two metres wide, and contact your local government for a work permit before you remove any amount of aquatic vegetation. Easier still, put a ladder at the end of your dock and skip the shallows entirely.
- Opt for a low-impact dock. If you're ready for a new dock, choose a floating, pipe, or a cantilever dock, which cause much less disturbance to lakebed habitat and life than the traditional crib dock. Ideally, choose a design that minimizes modifications to the shoreline.
- **Fisheries and Oceans Canada** has produced a cottagers guide containing helpful information on how to protect your shoreline and build a dock that meets your needs. Information is also provided on the approvals that might be required before you begin to build.
- Place only clean gravel - free from fine materials and organic matter – along the lakeshore or riverbank.
- When constructing docks, minimize interference with the natural movement of water and sediment by supporting the structure with piles or floats.

Protect Wildlife Habitat

- On forest land, link forest patches with corridors of trees and shrubs to allow wildlife to move under cover. Remember to use native species. Our songbirds take more readily to a familiar thicket of native dogwood or willow than to introduced, exotic species such as weeping mulberry. Native species provide food as well as cover, and are not as likely to dominate other native plants as introduced species often do.
- When cleaning up your property, think about how wildlife might use it. Rabbits, rodents, and birds will use brush piles for cover. Manage your woodlot with wildlife in mind. For example, standing dead trees or “snags” play a wide variety of wildlife roles. Insects live in the wood; fungi break it down. Fungi and insects provide food for other creatures. Pileated Woodpeckers will visit the snag to feast on the insects or make nesting holes. These, in turn, eventually become homes for cavity-nesters like other woodpeckers, Wood Ducks, flying squirrels, and raccoons. Even after the tree falls, it has an important role to play for wildlife: salamanders, small rodents, and a variety of invertebrates and other organisms will live under it. Ants will live in it. If the tree falls over a stream, it will provide shade and cover for fish.
- Because old trees are still wrongly considered useless and inherently dangerous by many people, there can be a shortage of snags for wildlife in some areas. Nest boxes provide a short-term solution to this problem, replacing the nesting cavities that snags would provide. Eastern Bluebird and Wood Duck populations have come back in North America thanks to hundreds of landowners who provided nest boxes for them. You can also put out boxes for chickadees, wrens, and kestrels; roosting boxes for bats; and posts with platforms for raptors. The long-term solution is the preservation of a mixture of healthy, dying, and dead trees in managed forests and elsewhere, as long as the snags are not a hazard to people or property.
- If you provide bird feeders or nest boxes be sure to thoroughly clean them periodically. Hummingbird feeders should be checked and cleaned frequently as the sugary syrup may ferment into alcohol and cause liver cirrhosis. Feeding ducks breadcrumbs is a popular pastime, but remember that ducks eating bread will feel full and not seek more nutritious food. Ducks have died of malnutrition from eating bread instead of the aquatic plants and invertebrates that are their natural diet.
- There is a growing land trust movement in Canada, in which landowners agree not to develop their land, but to leave it in a natural state. If there is a land trust movement in your area, you could join it. If not, consider starting one. Since 1995, over 200 Canadians have donated lands and conservation easements valued at \$25 million to conservation organizations under the **National Ecological Gifts Program** administered by **Enviroment Canada**.
- Keep your domestic animals under control. Respect local leash laws. Dogs running free can harass and kill wildlife. A bell around the neck of an outdoor cat gives birds more of a chance. Domestic cats kill millions of songbirds a year.
- Use cars less. Cars pollute. As well, a lot of wild animals are killed trying to cross busy highways.
- Buy food grown without herbicides and pesticides. This supports farmers whose land is the most “wildlife friendly.” Buy other “green” goods, such as ecocertified lumber and papers, for the same reason.
- Reuse or recycle your plastic products and avoid products with disposable plastic packaging. Animals have been known to die after swallowing plastic debris or becoming entangled in plastic six-pack holders.
- Participate in the land-use planning process in your community to ensure that wildlife habitat, especially habitat for endangered species, is protected.
- Teach others what you know.

People and Wildlife

- Learn about black bears, their ecology, behaviour, food habits and habitat use.
- Do not feed birdseed or liquid sugar to birds from late April through October.
- Never put meat, fish, bones or seafood shells in the compost. (Store them in the freezer until you are ready to dispose of them). Turn compost often to prevent odours.

- Although composting correctly will not attract bears or other wildlife, you may want to consider composting indoors. If you're at your cottage at least every other weekend, you can compost your food scraps indoors, using worms. They create beautiful compost in special "vermicomposting" containers that emit little or no smell, so they aren't a wildlife attractant. However, the hardworking worms need to be fed a minimum of once every two weeks. For more information on composting contact **Resource Conservation Manitoba** at www.resourceconservation.mb.ca.
- Keep barbeque grills clean and free of grease. Store it in a shed if possible.
- Make sure garbage containers have secure lids and are emptied frequently. This will keep other animals such as skunks and raccoons from becoming a problem.
- Do not leave food at the cottage that may spoil when you are not there. Inspect all windows and doors to make sure they are locked and secure.

Fishing

- Use only live bait that has been obtained from a licensed Manitoba bait dealer or catch your own in designated areas.
- Clean fish in a designated area and discard fish remains in the trash.
- Always discard fishing line in the trash. Most lines do not decay and can injure fish, birds and other wildlife that get tangled in the line.
- Ensure that six-pack plastic rings and metal drink can tabs are placed in the trash – these can also injure fish and other wildlife.
- Practice selective harvest and catch-and-release fishing.
- When fishing in Manitoba, refer to the consumption guide for recreationally angled fish to determine allowable limits for eating due to mercury. Those fish not recommended for consumption should be released unharmed.
- If you are a hunter or angler, use non-lead shot and fishing gear so birds ingesting spent shot or lost sinkers will not be poisoned by lead. Follow the regulations regarding seasons and catch limits and report poachers through your provincial or territorial wildlife agency or the RCMP or Crime-stoppers.

Stop Invasions of Exotic Species

- Inspect your boat, motor, trailer and boating equipment, such as anchor, centreboards, rollers and axles. Remove all visible zebra mussels and other plants and animals before leaving any waterbody. Drain water from the motor, live well, bilge and transom wells onto land before leaving the area.
- Wash or dry your boat, tackle, downriggers, trailer, and other boating equipment to kill harmful species that were not visible at the boat launch. Since some aquatic species can survive more than two weeks out of water, it is important to:
 - Rinse your boat and any equipment that normally gets wet, with hot tap water, 40°C or more.
 - Spray your boat and trailer with high pressure water - at least 250 pounds of pressure per square inch.
 - Dry your boat and trailer in the sun for at least five days before transporting them to another body of water.
- Learn to recognize zebra mussels and other exotic species. If you suspect that zebra mussels or other species have spread to a new location, report it to your local **Manitoba Water Stewardship** or **Manitoba Conservation** office.
- Never release live bait or unwanted aquarium fish into lakes or rivers and never release aquatic animals from one waterbody into another.

Environmentally Friendly Landscape Practices

- Use fertilizers sparingly; use fertilizers in multiple applications rather than one large application.
- Compost kitchen and garden wastes to provide a natural supplement to yards and gardens.
- Xeriscape your yard - it requires less pesticide, fertilizer, water and maintenance. Put plants with similar water needs together, use compost and manure to improve water retention and percolation in soil, irrigate efficiently, reduce lawn area; choose native plants or those from similar zones and use mulches to reduce surface evaporation of water.
- Encourage beneficial insects (and insect-eating birds too) by promoting natural habitats.
- Do not use bug zappers as they will kill beneficial insects which are important to a pest-free landscape.
- Pull weeds and pick harmful insects off your plants.
- Avoid using railway ties for landscaping or dock construction. Railway ties are generally treated with creosote, which is a mixture of toxic chemicals. These chemicals can leach into the soil or water and are toxic to plants and people.

Understanding Health and Heating with Wood

- Burn small, hot fires – they produce much less smoke than ones that are left to smoulder.
- Burn seasoned wood – burning “green” or wet wood produces significantly more smoke. Firewood should be seasoned for at least six months.
- Split wood into pieces that are 10–15 cm (4–6 in) in diameter. Fires burn better with more surface area exposed to the flame.
- Never burn garbage, plastics, cardboard or Styrofoam. Burning garbage releases poisons.
- Never burn wood that has been taken from salt water. Chlorine combines with the smoke to produce dioxins and furans, which are dangerous carcinogens.
- Burning treated or painted wood, particleboard or plywood represents a health hazard. Wood treated with varnishes and sealants, wood from orchards sprayed with pesticides and pressure-treated wood may contain toxic chemicals. Burning treated wood may release these toxic chemicals into the environment in the smoke or in the ash that is disposed of later.
- Store wood outside, off the ground and covered. Bring it into your home as needed. The excess moisture found in green wood increases the relative humidity of the indoor air, which can lead to mould and mildew growth. Both can cause severe allergic reactions and asthma attacks.
- Use a high-efficiency wood stove, fireplace or insert that is certified as low emission by the EPA, a standard accepted in Canada. These wood-burning appliances burn most of the smoke right in the firebox and can cut emissions by up to 90 percent.
- Reduce your heating needs by making your house more energy efficient.
- Regardless of the type of wood-burning appliance, it should be installed by professionals and inspected and cleaned at least once a year by a technician certified under the Wood Energy Technical Training (WETT) Program or, in Quebec, the Association des professionnels du chauffage (APC). These certified installers and chimney sweeps have gone through a rigorous training program that is recognized by the industry and by government.

Save Energy

- Retire that old beer fridge. It’s been great for your overflow beer stash, but that ancient fridge in the boathouse is sucking more than four times the electricity of a newer, energy-efficient model, and costing you almost \$130 a year. Be a greener beer drinker and retire the clunker. At the very least, unplug it between visits and definite-

ly over winter. As for the kitchen fridge, another energy hog if it's 10 or more years old, keep it out of the sun, away from the stove, and in an area that allows air to circulate to improve its efficiency. Also check the door seal: If it isn't tight enough to hold a piece of paper in place when closed, repair or replace it

- Beware the phantom load. Some electrical devices that use a remote control, like televisions, DVD players, or stereos, or use an adaptor, such as computers, continue to steal power after they're turned off. Unplug these or hook them into a power bar with a switch so you can really turn them off when not in use.
- Switch the cottage wattage. Even the few table lamps and overhead lights that illuminate the corners of your cottage would cost a lot less to you and the environment if you switched from incandescent bulbs to compact fluorescent bulbs. They last up to 10 times longer and use about one-quarter the electricity. Turn off inside lights and other electrical equipment whenever you leave the cottage.
- Don't be a night polluter. Floodlights and other high-wattage outdoor bulbs are not only energy eaters, they are inappropriate at the cottage. They cause light pollution on our lakes, messing up the mating and feeding behaviour of wildlife, reducing boaters' ability to see navigation lights, and stealing our view of the stars. Replace them with low-wattage lamps; and turn them off unless you really need them.
- Hold the heat in hot water. Wrap your hot water tank in an insulating jacket, available at most hardware stores. When you're away for the week, turn down the setting from "hot" to "warm" or "low." Or get rid of the tank entirely for an on-demand system, which heats water only when required.
- Put the kettle on. Keep a kettle full of water on the woodstove. Even if you don't use it, water has a high heat capacity and will continue to warm (and humidify) the room after the stove has gone out.
- Listen to Charlotte. When sealing up cracks in the cottage, keep an eye out for spider webs. Spiders like to weave them in the path of airflow (a.k.a. air leaks) to catch insects.
- Plant a tree or two. Green giants are great insulators of the cottage. Plant deciduous trees on the south and west sides of the cottage, to provide shade in summer and let sun inside throughout the winter. Conifers on the north and northwest sides block cold winds in winter with their thick evergreen boughs.
- Hang curtains or blinds. And keep them closed as much as is practical – they help hold cool or warm air inside (and they're much better at preventing bird-window collisions than bird silhouettes). In the winter, curtains on south-facing windows should be opened during the day to let the sun in and closed at night to keep the heat in. Insulated curtains, such as window quilts, are an excellent way to increase your heat efficiency.
- Paddle a canoe or kayak, row a boat, or sail a windsurfer or sailboat instead of using a powerboat to travel on the lake or river. These activities are quieter so they don't disturb wildlife, and they increase your chances of seeing wildlife. Remember that loud noises in winter disturb animals at a time when they need to rest and conserve energy.
- Buy four-stroke engines if purchasing an off-road vehicle or outboard motor. Four-stroke engines are more efficient and produce fewer emissions than two-stroke engines.
- Save electricity by turning off lights and other electrical equipment when you leave the cottage after a visit, and shut down the system, if possible, at the end of the season.
- Use fluorescent lighting or long-life bulbs instead of incandescent lights to save on replacement costs and energy bills.
- Purchase equipment with automatic power-saving devices.
- Use solar energy panels, if possible.
- Replace your old "airtight" and "potbellied" woodstove with a safer, more efficient, and less polluting U.S. Environmental Protection Agency (USEPA)-approved woodstove.

Household Hazardous Waste Management

- Avoid purchasing products that are toxic and hazardous.
- If you must purchase toxic products, buy only the amount you need, read the label carefully and use the product only as directed.
- Keep unused products in their original containers so the label can be referred to for product use

and disposal.

- Store hazardous products in a safe place and handle them with care.
- Take items such as old batteries and used oil to the proper waste disposal facility and not to the landfill.
- Keep sawdust, cat litter or another absorbent material handy in case of an accidental spill.
- Use hazardous chemicals far from wells, cisterns or waterbodies.
- When you need to top up gas tanks, such as chainsaws, generators, pumps, and boat engines, do it well back from shore, preferably over a tray and in a shelter with a hard floor.
- Use a non-toxic antifreeze for winterizing your boat since this gets discharged on your first launch.
- Wash your boat on dry land only; avoid using harsh cleaners, soaps, or detergents.
- Never pour household chemicals down the drain, storm sewer or on the ground.
- Find out if your community has a program for the disposal of hazardous materials; if it does not, suggest your local government start one.
- See if your neighbour can use your leftover hazardous household products or exchange those products at community events, like paint swaps.
- Some used building supply stores will also accept partial cans of paint and other products.
- Miller Environmental Corporation, a hazardous waste company, holds Hazardous Household Waste Days for Winnipeg homeowners to discard unwanted toxic chemicals.
- Some municipal waste disposal grounds recycle hazardous materials. Miller Environmental Corporation holds over 10 recycling events in rural Manitoba every year. Check with your local recycling program or municipality for events planned in your area.
- Organize a Storm Drain Marking event with your classroom or neighbours to inform people that water from the street enters storm drains and ends up in our lakes, rivers and streams.

Environmentally Sensitive Choices

- Phone the company if you cannot find the information that you need on the product label - some companies now have 1-800 numbers listed on their products.
- Buy phosphate-free detergents for laundry and dishes.
- Purchase products with the EcoLogo stamp of approval.
- Buy biodegradable products.
- Purchase products with minimal packaging. Buy refills and reuse your containers. Call suppliers if you feel they are using too much packaging.
- Reuse grocery bags, or better still, use cloth bags while shopping.
- Carry your own coffee mug to avoid using disposable cups.
- Try the following alternatives to household insecticides: to remove food sources store cereals in air-tight containers, store excess flour in the freezer, clean crumbs and sticky spills and use fly paper rather than bug spray. Remove clutter, especially in damp areas of your basement, to eliminate hiding and breeding areas for unwanted pests.
- Consider reusing before recycling.