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Protect Our Water

Household Water Conservation and Stewardship Program

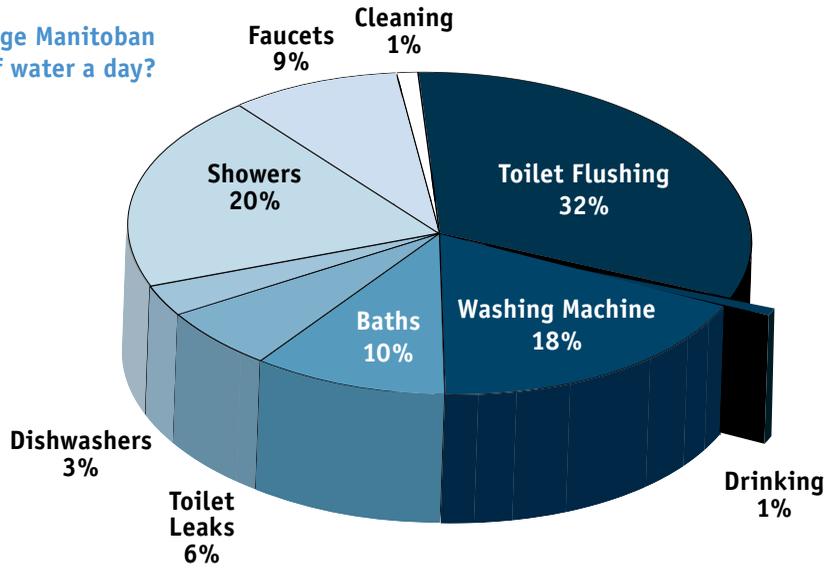




Welcome to the Manitoba Eco-Network's "Protect Our Water" household water conservation and stewardship program. We will work together to set goals for your household to conserve water and become better water stewards!

Indoor Residential Water Use

Did you know that the average Manitoban household uses 227 litres of water a day?



Water Conservation and Preservation Tips

Bathroom

Turn off the tap while brushing your teeth ...and use a glass of water to rinse.



Turn off the tap while shaving
Put the plug in the sink and add a bit of water!

Take shorter showers and/or only fill the tub 1/3 of the way
Take quick showers instead of baths; you'll use up to 50% less hot water.

Install toilet dams
This allows the toilet tank to 'fill' using less water. Install a store-bought dam into your toilet's tank, or make your own by filling a plastic bottle with water or gravel, put the lid on the bottle and place it in the toilet's tank.

Install a sink aerator
Install a sink aerator preferably with a 3.5 liter per minute output (there should be a marking on your current aerator to indicate its output). Aerators are screwed directly onto your tap and help decrease the flow without losing pressure. They are inexpensive; ranging from \$2-\$6.

Install a low-flow shower head
Replace your old shower head with a low-flow 10 litre per minute or less showerhead. Prices range from \$6-\$50 depending on the make and style.

Install a low-flow toilet
Older toilets use 13 to 26 litres of water per flush! Install a low flow (6 litres), dual flush (3-6 litres), or ultra-low flow (3 litre) toilet. There is currently a City of Winnipeg rebate of \$60 for certain low-flow models. Check out <http://winnipeg.ca/waterandwaste/water/conservation/toiletreplacement/default.stm> for more information.



Installing a dual-flush toilet will save roughly 14,600 litres per person per year. A typical residential customer (family of 4) could save approximately \$180 annually on their water bill. Your new toilet will pay for itself in about 2 years!



How food is grown affects wetlands, rivers, and lakes. Support water-friendly land use by buying produce from local organic farmers.

Leaving the cuttings on the lawn returns minerals, nutrients and moisture to your turf. It will also save you time!

Kitchen

Rinse Vegetables and Fruit in a bowl

Instead of running the water while you wash your vegetables and fruits, plug the sink or fill a small bowl with water.

Buy local and organic food

How food is grown affects wetlands, rivers, and lakes. Support water-friendly land use by buying produce from local organic farmers.

Keep drinking water in the fridge

Instead of running the tap waiting for drinking water to get cold, keep it on hand – in a pitcher in the fridge.

Install a sink aerator

Install a sink aerator preferably with a 7 liter per minute output (there should be a marking on your current aerator to indicate its output). Aerators screw on directly to your tap and reduce the flow without decreasing water pressure. They are inexpensive ranging from \$2-\$6.

Wash dishes with less water

Use less water to wash your dishes and rinse them in a plugged sink or put them in a dish rack and rinse them all at once with a jug of water.

Install a low-water-use dishwasher

If you're in the market for a new dishwasher there are many new low-water-use dishwashers now on the market which use much less water than older models.

Only run a full dishwasher

Use your dishwasher only when it's full.

Use natural, biodegradable, phosphate-free soaps and detergents

Most stores now carry a wide-range of environmentally friendly cleaning products. See page 8 for more information.

Laundry

Do full loads

Only using your washer when it is full will help cut down on the amount of water your household uses.



Use phosphate-free detergents

It is important to ensure that we not only use less water, but that we don't contaminate what we do use. Many grocery stores now carry phosphate-free detergents.

Install a low-water-use washing machine

If you're in the market for a new washing machine there are many low-water-use front loading machines on the market. A front loading machine uses between 45L to 110L per load depending on the size of the machine, while a top loading machine uses between 150L to 180L per load.

Outdoors

Don't over-water your lawn

Most lawns and gardens only need 2 to 3cm or 1 inch of water a week and this includes rainfall. If you do water your lawn do it early in the morning to avoid evaporation. Only water the lawn - not the sidewalks or driveway.

Cut your grass high and leave the clippings on your grass

Cutting your grass with a higher blade puts less stress on the grass, requiring less water for healthy growth.

Clean up after your pet

Cleaning up after your pet ensures that their waste does not enter our water supply.

Go organic

Pesticides, herbicides and fertilizers start out on our lawns and gardens, but they can end up in our water supply. These chemicals contribute to the eutrophication of our streams and lakes, are hazardous to aquatic wildlife, and make water unsafe to drink. The Manitoba Eco-Network offers free organic lawn care workshops, contact info@mbeconetwork.org for more information.

Use a rain barrel

Putting a rain barrel under your home's drain spout can help you collect valuable water to use on your lawn and garden.

Add a rain garden

Rain gardens are easy to create and look beautiful. These planted depressions help retain water after a heavy rainfall or fast melt and stop storm water run off from getting into our sewers.

Xeriscape

Replace your grass with local species, or add native plants that require no watering once they are established – this reduces water use and yard work! See page 7 for more information.

Add more permeable surfaces

...these can help absorb water instead of draining it off into the sewer. If you are renovating your patio, driveway or pathways use gravel, paving stones, wood chips or mulch instead of cement or pavement.

Create a green roof

Green roofs (vegetation planted atop a waterproof membrane on the roof of a

building) help absorb storm water run off and add an extra layer of insulation to your home.

General

Check for household water leaks

There are simple, easy ways to check for leaks. Put a dye tablet or food coloring in your toilet's tank. Leaky faucets are easy to see and left unfixed can use over 7000L of water per year. So tighten up those taps!

Use natural cleaning products

What you use to clean your house can have negative effects on your health and the environment. Everything that goes down your drain can end up back in our water systems. See page 8 for more information.

Dispose of hazardous materials safely

Do not pour any hazardous materials down your drains or put them out with the trash as they can end up in our water supply. See page 6 for more information.

Check for auto leaks

Check your vehicle to ensure that it is not leaking any fluids. These fluids can seep into our soil or get washed away with storm water and end up in our sewer system.

Wash your car with a bucket and sponge

This method alone can save hundreds of litres of water.

Recycle your greywater

Greywater is used household water that has not had contact with black water (toilet water or water used to wash diapers). Greywater can be used to water plants. The Manitoba Eco-Network can provide you with more information if you are interested in recycling your greywater.



The Province of Manitoba estimates that 13.7% of indoor water consumption is due to leaks.



Household Hazardous Waste

The following is a list of some of the most common household hazardous waste materials. If you are unsure about an item not listed visit the City of Winnipeg website at www.winnipeg.ca/waterandwaste/garbage/hhw.stm for more information.

Cleaners: abrasive powders, air fresheners, all-purpose cleaners, ammonia, bleach, disinfectants, drain cleaners, fabric softeners, lighter fluid, mildew removers, oven cleaners, polishes and waxes, rug and upholstery cleaners, rust removers, toilet cleaners, window cleaners.

Pesticides: ant and wasp spray, fertilizers, fungicides, herbicides, insecticides, mothballs, road spray, rodent poison.

Paints: epoxies, lacquers, paint, solvents and turpentine, spray paint, wood preservatives

Automotive: Antifreeze, brake and transmission fluid, car batteries, gasoline, kerosene, motor oil, road salts.

Medical: hair dyes, hair sprays and mousses, medicine, polish remover.

Household Hazardous Waste Drop-off Sites

Miller Environmental Corporation

1803 Hekla Ave.
Winnipeg, MB
204.925.9615

9am-4pm 1st Saturday of each month from October to March

9am-4pm 1st & last Saturday of each month from April to September

You can call Green Manitoba at 925.9600 to book a drop-off time for Wednesday or Thursday year round.



Xeriscaping Your Yard

Planting native Manitoba trees, shrubs, grasses and flowers can help your household reduce its water use. After the first year, most native plants require no watering! Plus you'll save time, by not having to mow the lawn. Even a small native garden makes a big difference. Many local garden centres now carry a variety of native plants.

Shady Areas

- baneberry
- western Canada violet
- downy yellow violet
- early blue violet
- ostrich fern
- Solomon's seal
- sweet-scented bedstraw
- tall bluebells
- wild columbine

Sunny Areas

- black eyed susan
- whorled milkweed
- western silvery aster
- stiff goldenrod
- wild bergamont
- white prairie clover
- coneflower
- blue grama grass
- harebell
- prairie sage
- smooth aster
- wild flax

Wet Areas

- Bebb's sedge
- blue flag
- golden Alexanders
- Joe-pye weed
- marsh marigold
- northern bog violet
- prairie cord grass
- swamp milkweed
- sweet grass
- tall meadow-rue
- wild strawberry

Rock Gardens

- blue grama
- dotted blazing star
- ground plum
- june grass
- little blue stem
- pink-flowered onion
- prairie crocus
- pussy-toes
- sheep fescue
- three-flowered avens

The following locations carry native seeds or seedlings and can help you learn which plants will grow best in your yard.

Prairie Habits Inc.

(Indigenous wildflowers/grasses)
Contact: John Morgan
Phone: 467-9371
P.O. Box 1, Argyle, MB, ROC 0B0
www.prairiehabitats.com

Living Prairie Museum

(Indigenous wildflowers, grasses, books and supplies, workshops, native prairie exhibits)
Phone: 1-204-832-0167
2795 Ness Avenue, Winnipeg, MB, R3J 3S4
www.winnipeg.ca/publicworks/naturalist/livingprairie/





Natural Cleaners

If you purchase conventional cleaners watch out for the following ingredients: silica, nonyl phenol and 2-butoxyethanol as they can be toxic to both you and the environment.

If you choose to purchase natural cleaners look for those with environmental certification, such as Environmental Choice. Go to www.environmentalchoice.com to find a detailed list of environmentally friendly products.

Buying natural or conventional cleaners can be costly. You can make your own cleaners for a lot less money and they take very little time or energy to make. Here are a few recipes:

Make Your Own Cleaners!

WINDOW CLEANER RECIPE

Use a 50/50 solution of white vinegar and water. The first time you wash windows using this solution, add a couple of drops of dish soap to get rid of the film left by earlier chemical cleaners.

ALL-PURPOSE CLEANER RECIPE

Use white vinegar or baking soda to clean tubs, toilets, sinks, floors and other surfaces.

LAUNDRY SOAP RECIPE

Mix equal parts laundry borax and washing soda (sodium carbonate). Borax is available at most grocery stores.

General Use

LEMON JUICE

Removes grease from mirrors and tables.

WHITE VINEGAR

Removes grease, prevents mould formation, and cleans windows and floors.

TABLE SALT

Disinfects and scours.

SODIUM BICARBONATE (Baking Soda)

Scours, cleanses, deodorizes, removes spots, softens fabric and unclogs drains (mixed with vinegar).



Where does our water come from?

Winnipeg gets its drinking water from Shoal Lake, which is located near the border between Manitoba and Ontario. Our water travels 135 km through a long aqueduct (concrete pipe).

The water is stored in the Deacon Reservoir, which can hold 8.8 billion litres of water, in 4 cells. The water is treated at the new water treatment plant (east side of the floodway near highway 15), with an ultra-violet light to kill water borne parasites and with chlorine to kill harmful bacteria. Once the water is treated it is transferred to your home through various pumping stations located throughout the city. Winnipeg's 270,000 homes and businesses combined consume an average of 215 million litres of water a day.



Where does our water end up when it goes down the drain?

The City of Winnipeg uses a combination of combined sewers, separate sewers and land drainage sewers.

Combined sewers

Combined sewers are located in the older neighbourhoods of Winnipeg. They are a system of single pipes that collect wastewater from homes, businesses and industries as well as surface runoff from rainstorms and snow melt. During dry periods wastewater and storm water is transported through these underground pipes, which have small dams installed near the outlet of the pipe to divert sewage to a waste water treatment facility. However, during wet seasons storm water levels are too high for the dams to prevent raw sewage and storm water from being released directly into the Red and Assiniboine Rivers. Raw sewage enters our rivers on average 18 times per year between May 1st and September 30th.

Separate sewers

A separate sewer system uses two pipes: one carries wastewater and the other carries land drainage and surface runoff from rainstorms and snow melt.

The role of the separate sewer system is to collect wastewater from homes, businesses and industries and carry it to a water pollution control centre for treatment. Since the 1960s, new property developments in the city have been serviced by a two-pipe system.



Land drainage sewers

A system of single pipes that carries rainfall and snow melt runoff from urban areas to the river system.

In all areas of the City, regardless of the type of sewer system that services our properties; storm water run-off contamination is a concern. For example, when we spray pesticides on our lawns or spill oil from our cars, it ends up in our sewer system and ultimately contaminates our rivers and lakes.

Our Lakes and Waterways

Our lakes and waterways are under threat. Wastewater overflow from urban centers, agricultural run-off and improper cabin sewage hook-up systems are some of the main causes of contamination of our water systems.

A primary example of how we have damaged our waterways is the current green algae blooms on Lake Winnipeg – which are so large they are visible from space. A process called eutrophication has caused these blooms to appear. Too much run-off from fertilizers, the spread of intensive livestock operations, and municipal wastewater overflow have caused an excessive amount of phosphorus and nitrogen to enter the lake. The phosphorus and nitrogen rob the lake of oxygen and pollute it with toxic bacteria.

Another problem facing Manitoba's water systems is the loss of our wetland areas. Much of Manitoba's low lying areas were wetland prior to Euro-Canadian colonization of the province. Wetlands have been drained for agricultural, industrial and residential expansion. The drainage of wetlands has meant the loss of habitat and biodiversity, as well as the loss of other natural services such as climate change mitigation, flood reduction, drought prevention, and water purification.



Web Resources

Assiniboine Watershed Network

www.awnonline.org

Provides information about creek cleanups, educational tours and resources.

Beyond Factory Farming

www.beyondfactoryfarming.org

Provides information on intensive livestock operations and water contamination.

FortWhyte Alive

www.fortwhyte.org

Provides educational programming, has restored wetland areas, hosts a variety of low-flow fixtures and hosts an onsite wastewater treatment system.

Government of Manitoba

www.gov.mb.ca/seeinggreen/watersmart.html

Water saving and greening tips.

Oak Hammock Marsh

www.oakhammockmarsh.ca/

Provides educational programming, an interpretive center, and a marsh area.

Red River Basin Commission

www.redriverbasincommission.org

Conducts research and conservation work.

Save Our Seine River Environment Inc.

www.saveourseine.com

Provides information about river bank cleanups, conducts educational programming, and does conservation work.

Water Matters

www.water-matters.org

Water facts and current issues.

Prairie Water Watch

www.prairiewaterwatch.ca

Research and education.

Ducks Unlimited

www.ducks.ca

Research, educational programming, conservation.

Living Prairie Museum

www.winnipeg.ca/publicworks/naturalist/livingprairie/

Provides educational programming on native plants, is home to 30 acres of tall grass prairie.

Sierra Club

www.sierraclub.ca/en/health-environment/water/

Water facts, conservation tips.

World Wildlife Fund

www.wwf.ca/conservation/freshwater/riversatrisk.cfm

Information on the effects of contamination on wildlife.

Greenpeace

www.greenpeace.ca

Conservation, research, education.

Council of Canadians

www.canadians.org/water/

Conservation, research.

Youth Web Resources

MB Eco-Network

mbecoyouth.org

Green Street

www.green-street.ca/en/

Sierra Youth Coalition

www.syc-cjs.org/node

United Nations International Year of Fresh Water 2003

www.unesco.org/water/iyfw2/ed_theme.shtml

Children's Web Resources – games and activities

Eco Kids - www.ecokids.ca

Children's Water Education Council

www.cwec.ca/GWBasics

Fisheries and Oceans Canada

www.dfo-mpo.gc.ca/canwaters-eauxcan/bbb-lgb/index_e.asp

Environment Canada

www.ec.gc.ca/education/default.asp?lang=En&n=51CCECC2-1



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