



# Clean water.

For me. For you.  
*Forever.*

A hands-on guide to  
keeping Manitoba's  
water clean and healthy.

**Manitoba** 

*Building for the Future*

# Water

## Manitoba's natural treasure

Water is Manitoba's most precious and essential resource.

Our deep, pristine lakes give us drinking water. As well, our lakes are beautiful recreation spots enjoyed by thousands of campers, cottagers and fishers — including many fishers who earn their living on our lakes.

Manitoba's lakes, rivers and wetlands are home to a wide variety of fish and wildlife. And our rushing rivers generate power for our businesses and light up our homes.

Even more important, water is the source of all life on earth. It touches every area of our lives. Without it, we could not thrive — we could not even survive.

Unfortunately, many of the things we do every day can hurt our water. That's why the Manitoba government is taking action to protect our water, and clean it up.

But to help make sure Manitoba always has plenty of clean water, we all have to take action too. Small changes can make a big difference.

This guide outlines practical things we can do in our homes, our yards, at our cottages and when we are camping, to preserve and protect our water. It's up to all of us.



### WHERE THE WATER FLOWS

Water is contained in natural geographic regions called watersheds. Think of them as large bowls. Sometimes they are grouped together to form larger regions, sometimes they are small and isolated. Watersheds help us protect our water by allowing us to control the spread of pollutants and foreign species from one watershed to another. When we see Manitoba as a network of watersheds, it helps us to understand how actions in one area can affect water in other areas.

### WHERE THE WATER MEETS THE LAND

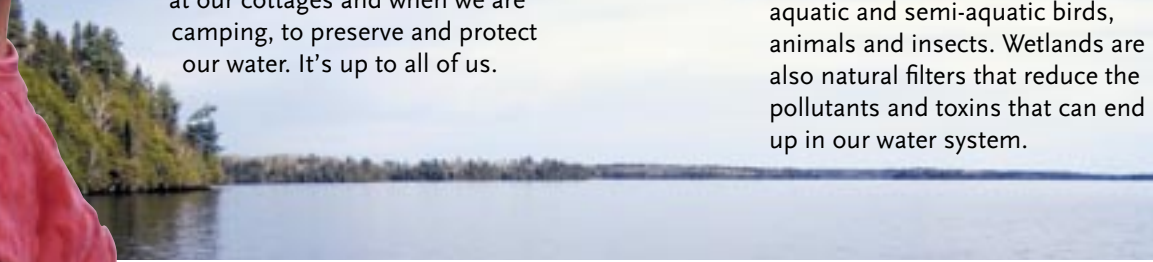
The strip of land alongside rivers, lakes, streams, dugouts, ponds and even man-made ditches is called a riparian zone or shoreline. The trees and vegetation along this strip of land are an important habitat for many kinds of wildlife and the last line of defense between pollutants in the ground and our water. Maintaining our shoreline is essential to preserving and protecting Manitoba's water.

### WETLAND HABITATS

Areas where the ground is soggy, or where shallow water ripples through high grass or reeds, are often called bogs, fens or marshes. These wetland habitats are a vital part of Manitoba's water landscape; they provide habitat for many aquatic and semi-aquatic birds, animals and insects. Wetlands are also natural filters that reduce the pollutants and toxins that can end up in our water system.

### MANITOBA WATER FACTS

- Manitoba's 100,000 lakes and assorted rivers and streams carry 900 trillion litres of surface water and cover 16% of the province.
- Wetlands and peatlands cover 41% of the province.
- Three of Canada's 14 largest lakes are in Manitoba — Lake Winnipeg, Lake Manitoba and Lake Winnipegosis.
- Manitoba is the only province in Canada where all river water eventually flows north.
- More than 70% of the flow in our streams and rivers originates outside of Manitoba.



# How water flows through

# our lives

Water makes life possible and helps our economy thrive. If you think about it, water touches nearly everything we do.

## IN OUR HOMES

We all use water for drinking, food preparation and bathing. About 80% of us consume surface water from lakes and rivers. 20% of us use groundwater through wells from underground reservoirs called aquifers.



## RECREATION

We use our surface water for swimming, boating, fishing and a variety of other recreational activities. Many tourists visit Manitoba every year to enjoy our lakes and rivers.

## HABITAT

People are not the only living things that depend on water. Manitoba's surface water and wetlands are home to aquatic wildlife such as fish and insects, as well as semi-aquatic wildlife — muskrats, beavers, ducks and geese.



## LIVESTOCK

Like people, livestock require an abundant supply of high-quality drinking water to live and thrive.



## INDUSTRIAL

Manitoba's industries use both surface water and groundwater for activities such as pulp and paper production, mining, smelting, manufacturing and distilling, cooling and heating.



## POWER GENERATION

Manitoba is a leader in generating clean, reliable hydroelectricity. Water powers our computers, our lights and our refrigerators.

## IRRIGATION

Many of Manitoba's crops are irrigated by both surface water and groundwater. We also use water to irrigate our lawns and gardens.





# Threats to Manitoba's water

Manitoba is fortunate to be one of the most 'water rich' places on earth, but many things can impact the quality of our water, including our own activities.

## POLLUTION

Both natural and human activities cause pollution, and pollution can reduce the quality of our surface water and groundwater. Natural pollutants include salts, arsenic, uranium and wildlife wastes. Human activities that cause pollution include leaking septic fields, wastewater, petroleum storage tanks, fertilizers, pesticides and livestock waste.

## NUTRIENTS

Nutrients are usually a good thing, but when nutrient levels in the water get too high, aquatic plant growth can get out of control and cause damage to the water. Sources of harmful levels of nutrients include human sewage, bog drainage, pet and livestock feces, agricultural, lawn and garden fertilizers, wastewater and cleaning products.



## CONSUMPTION

We have lots of water, but our supply is not endless. Overuse can deplete both groundwater and surface water supplies. Only 5% of household water is used for cooking and drinking. The rest is flushed away in toilet water, showers or sinks. In summer months, activities such as watering the lawn and garden, and washing the car can increase water use by 50%.

**Only 5% of domestic water consumption is used for cooking and drinking.**



## FOREIGN SPECIES

Our surface waters are home to many species of plants, insects and aquatic life. This environment can be delicate and easily upset. The introduction of foreign species of insects, plants, fish or other types of wildlife can have a dramatic impact. Foreign species can be carried from one waterway to another on boat bottoms or in bait buckets.

## FLOODS AND DROUGHT

Floods and droughts can also affect our water supplies. Droughts can deplete both surface water and groundwater, and floods can transport garbage, pollution and foreign species that can damage our surface waters.

## CLIMATE CHANGE

Climate change has the potential to seriously damage Manitoba's water. Severe weather caused by climate change can threaten our watersheds. Even small, long-term increases in average temperature can reduce wildlife populations and permanently damage water systems.



Working to protect

# Manitoba's water

## Manitoba's clean water policy

Manitoba has lots of water, but it's a fragile resource that we can't take for granted.

From farming to fishing, from recreational activities to powering our homes and businesses, Manitobans rely on our province's supply of clean, fresh water every day.

The Manitoba government is working hard to preserve and protect this vital natural resource by:

- closely managing fish habitats
- promoting water conservation
- ensuring surface water and groundwater quality through controls on industry and wastewater treatment
- controlling harmful nutrient levels in our lakes and streams
- continually testing drinking water supplies
- working with Manitobans to improve water quality in our lakes with special emphasis on restoring Lake Winnipeg
- working with northern Manitoba communities to plan hydroelectric development and to ensure that proper environmental assessments are conducted
- working with the agricultural industry and agricultural communities to meet the challenges ahead while protecting Manitoba's water
- working with communities and organizations to develop Manitoba watershed management plans
- seeking input from Manitobans on land drainage, water use, planning, stewardship and conservation
- seeking input from Aboriginal communities and northern residents on Manitoba's water strategy and implementation

## Lake Winnipeg

### PROTECTING OUR PRAIRIE OCEAN

With a surface area of 24,000 square kilometres, Lake Winnipeg is one of the largest freshwater lakes in the world. Over the past 30 years, human activity has increased the level of harmful nutrients like nitrogen and phosphorus in Lake Winnipeg, causing algae overgrowth. Too much algae in the lake:

- reduces recreational opportunities like swimming and water sports
- increases drinking water treatment costs
- changes aquatic habitat and produces toxins that are harmful to people, pets, fish and wildlife
- clogs the nets and threatens the livelihood of over 800 commercial fishers

Lake Winnipeg is too important to allow these changes to continue. The province is working with industry, communities, and neighbouring states and provinces to restore Lake Winnipeg. As part of the *Lake Winnipeg Action Plan*, the province created the Lake Winnipeg Stewardship Board. The Board will help Manitobans find the best way to reduce the flow of harmful nutrients into the lake.

The Clean Beaches program encourages Manitobans to protect Lake Winnipeg by following some simple guidelines.

- Don't feed the shore birds — gulls can quickly become accustomed to eating and living on the beach.
- Don't litter or discard food on the beach — dispose of trash in proper receptacles.
- Change diapered children frequently and away from the water's edge.
- Never bury waste in the sand.



# You can help...



## At home

Here are just a few simple ways you can conserve and protect water right in your own home — and save on your water bills at the same time.

### INSTALL LOW-FLOW FAUCETS AND SHOWER HEADS

These inexpensive replacements can reduce the amount of water you use in your shower by up to 50%. Shorter showers and only filling the bath half way can save a lot too.

### MAKE SURE YOUR DISHWASHER IS FULL BEFORE USE

Your dishwasher uses just as much water full or empty.

### SAME GOES FOR YOUR WASHING MACHINE

Fill your washing machine to its maximum recommended load or select reduced water volumes for smaller loads.

### DON'T BE A DRIP

Fix leaks and drips. A tap dripping at 30 drops per minute adds up to about 250 litres per month.

### TURN OFF THE TAP

Don't leave the water running when you wash dishes, brush your teeth or shave, and put a pitcher of water in the fridge instead of running the tap for a cold drink.

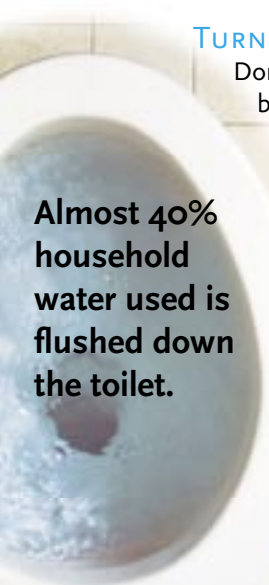
### INSTALL A LOW-FLUSH TOILET

If you're renovating or repairing your toilet, consider a low-flow toilet, they dramatically reduce water use.

### INSTALL A TOILET DAM

A toilet dam or even a water-filled plastic bottle in your toilet tank will reduce the amount of water used every time you flush.

**Almost 40% household water used is flushed down the toilet.**



## RECYCLE

The less waste we put in landfills, the less chance it has to get into our groundwater, lakes and streams.

### PROPERLY DISPOSE OF HAZARDOUS HOUSEHOLD WASTE

Paints, chemicals and household cleaners should not be disposed of with other household waste or ever flushed or poured down the drain. Contact your local hazardous waste disposal agency for instructions.

## And in your yard

### USE FERTILIZER SPARINGLY ON GRASS AND GARDENS

Follow manufacturers' instructions. Excess fertilizer may end up in the water supply.

### LIMIT PESTICIDE USAGE

Pesticides are chemicals, and their use can contaminate water. Use sparingly.

### COMPOST YOUR KITCHEN AND GARDEN WASTE AND USE IT INSTEAD OF FERTILIZER

Compost is the natural way to fertilize. It's free and an economical way to recycle organic waste.

### CLEAN UP AFTER YOUR DOG AND DISPOSE OF WASTE IN THE TRASH

Pet waste belongs in the trash, not on the grass where it can contaminate surface or ground water.





# You can help...

## At the cottage, beach and when camping

### PROTECT OR ENHANCE YOUR SHORELINE

Don't remove trees, rocks or shrubs from the shoreline. They help protect against pollution and erosion.

### DON'T CARRY AQUATIC PLANTS OR ANIMALS FROM ONE WATER BODY TO ANOTHER

Inspect your boat before moving it, and make sure it is clean of aquatic plants and animals.

### EMPTY YOUR BAIT BUCKET ON LAND BEFORE LEAVING A WATER BODY

Bait found at one river or lake should not be used in another. Every ecosystem is unique and fragile.

### DON'T USE FERTILIZERS OR PESTICIDES WITHIN 30 METRES OF THE SHORELINE

It can run into the water and create excessive growth of algae and water plants.

### USE PHOSPHATE-FREE SOAPS AND DETERGENTS AT THE COTTAGE

Phosphates are nutrients that can also cause excessive growth of algae and water plants.

### NEVER BURY GARBAGE OR WASTE NEAR A LAKE OR STREAM

Harmful pollutants may eventually get into the water. Take your garbage with you, or dispose of it in appropriate receptacles.

### HAVE REGULAR MAINTENANCE PERFORMED ON YOUR SEPTIC FIELD OR HOLDING TANK

Inspect and repair your cottage septic field or tank regularly.

### DON'T OVERFILL YOUR BOAT'S FUEL TANK

Spilled fuel or oil from overfull tanks is toxic to aquatic plants and fish.

## On your rural property

### DO NOT OVER APPLY FERTILIZERS AND PESTICIDES

Follow the manufacturers' directions, and use only when necessary. Excess fertilizers can run into our lakes and rivers. Too much fertilizer causes overgrowth of algae and water plants and can even make water supplies toxic to people, fish and wildlife.

### DRAIN WATER AWAY FROM WELLS

Ensure that surface pollution and animal waste drains away from your well to prevent contamination.

### PROPERLY SEAL OLD WELLS

Ensure that old wells do not become a source of contamination to your groundwater.

### REPAIR LEAKING SEPTIC FIELDS

Leaking septic tanks are a major cause of groundwater contamination. Have yours inspected regularly.

### CONSIDER USING A HOLDING TANK INSTEAD OF A SEPTIC FIELD

Holding tanks are emptied regularly and the waste is taken to a disposal site.

### REPAIR LEAKING OIL AND FUEL TANKS

Leaking oil and fuel tanks can contaminate soil as well as water. Inspect and repair as required.



# Doing nothing is not an option

# Not just a drop in the bucket

Sure, we have a lot of water, and we keep getting more. After all, it falls from the sky, doesn't it?

The truth is, the quality of our water is eroding all the time. Partly from natural causes, but mostly from the way we treat our environment. If we do nothing, it's possible that we will see drastic effects even in our own lifetime, and that the legacy we leave for future Manitobans will not be nearly so clean or healthy.

The time to act is now.  
It's up to all of us.



## IF WE DO NOTHING

- Water pollution will increase.
- Our drinking water quality will be poor, and it will cost more to treat it.
- Lakes, rivers and beaches won't be attractive places for swimming, fishing or camping.
- People, pets, fish and wildlife may become ill from water contamination.
- Loss of tourism and industry could have adverse economic impacts.

The province is working with individuals and communities to develop programs that manage water rights and promote water-related ecotourism, and ensure that all Manitobans have access to our province's water resources in a sustainable, environmentally responsible way.

Protecting our water may seem like a big task, but if everyone is simply a little more careful, and makes a few small changes, together we can make a huge difference.

Want to do more to preserve and protect Manitoba's water?

Spread the word about what you and others can do. Got ideas for a practical, sustainable project that would help to protect Manitoba's water? Let us know! We may be able to help get you started.

## PARTICIPATE

There are many ways to participate in Manitoba's water strategy. Attend public consultations — your input matters. Get involved in your local conservation organization or watershed planning activities. Take care of the water, streams, wetlands and shorelines around your community and encourage others to help. You can make a difference.

## LEARN MORE

To find out more about what you can do to protect Manitoba's water treasure, or for more information about all the topics in this brochure, visit us on the web at:

[www.manitoba.ca/waterstewardship](http://www.manitoba.ca/waterstewardship)





