



# 4 Common myths about: DRINKING water

**1** myth: We have lots of water in Ontario - so there's nothing to worry about.

**FACT :** We are surrounded by water so we think we have an unlimited supply. But, in reality, we don't. The drinking water we take from lakes, rivers, streams and underground aquifers must always be replenished through an endless cycle of evaporation, rain and percolation. No new water is produced - it's just recycled year after year. When we take water from our sources faster than they can replenish themselves, we face shortages and experience water bans. If we continue to take more than nature can supply, we will face serious, long-term water supply problems. Almost one third of municipalities with water supply systems reported water shortages over the past ten years and this number is increasing. Pressures on our water supplies include drought, equipment problems and increased usage due to growing populations. Some municipalities are predicting serious water shortages by 2016. We need to be aware of how much water we are taking out of the system right now, so we have enough for later.

**2** myth: Water is a natural resource so it should be free.

**FACT :** Water IS free. But it costs a lot to pump, store, move, treat and take away wastewater for the almost nine million Ontario residents who rely on municipal systems. Ontario residents who use municipal water pay an average of \$16 per month for this service, which studies show is not enough to cover the costs of operating, repairing, upgrading or expanding water treatment systems for growing populations. Furthermore, a 2005 report prepared by a provincially-appointed Water Strategy Expert Panel said Ontario's water and wastewater systems need \$34 billion in new investments over the next 15 years, along with serious changes in the way they are organized and governed or public health could be at risk. Considering the average cell phone bill is \$53 per month and the average cable TV bill is \$45 per month, what is a fair price for water?

**3** myth: We are already careful about conserving water.

**FACT :** Because we think we have an abundance of fresh water and pay so little for it, most of us aren't aware of how much we actually use or how we can make better use of it. In fact, Canadians consume the second highest amount of water in the world and pay the least for it. We use more than twice as much water per person, per day than people in European nations, like France, and yet we pay a quarter of the price. Compared to Germany, we pay almost one seventh the price. The good news is that we can easily cut our water use in half by repairing leaky faucets, retrofitting toilets and showerheads, using efficient appliances and making a few small changes in our habits, such as washing our cars and watering our lawns less, and washing only full loads of laundry and dishes. Most of us won't even notice the difference, but our water systems will.

**4** myth: We don't have to protect sources of water, since we already treat water and make it clean enough to drink.

**FACT :** Although we treat water through municipal systems, it's still important to protect it at the source. Water treatment systems do not remove all contaminants from water, particularly chemicals. We also have to consider the more than two million residents in Ontario who do not have access to municipal water and who draw their drinking water directly from untreated ground water sources. While it's cheaper to protect water in the first place, rather than having to clean it up later, it's not just a matter of money. Sometimes contamination problems can develop that are impossible to correct, which means some water supply sources have to be shut down. Water treatment is just one aspect of a "multi-barrier approach" used to protect drinking water. Other aspects include preventing contamination of source water, using adequate distribution systems, testing water and training water managers.

## SOURCE WATER PROTECTION

It's cheaper to protect groundwater than having to clean it up. According to the US Environmental Protection Agency, remediating groundwater can be forty times more expensive than taking steps to protect water at the source. Preventing contamination at the source also reduces the costs of treating water later on in the process.



# WATERSHED CONNECTIONS

## FORESTS

Forests moderate our climate, regulate water systems, prevent erosion, absorb carbon dioxide and provide wildlife habitat.

*Conservation Authorities protect, manage and restore Ontario's woodlands through tree planting and woodlot management programs.*

## LAKES, RIVERS AND STREAMS

Some of our drinking water comes from surface sources such as streams, rivers and lakes. The best way to ensure safe drinking water is not to contaminate these sources. Contamination often occurs through runoff from human activities.

*Conservation Authorities monitor and manage surface water quality and quantity as well as protect people and property from flooding and erosion.*

## VEGETATION

Vegetation, such as grasses, trees and shrubs, that you find beside lakes, rivers and streams is important to reduce erosion, filter out contaminants and provide habitat for fish and wildlife.

*Conservation Authorities provide advice and technical expertise to landowners about the planting of buffer strips along watercourses.*

Watersheds are made up of different ecosystems that are interconnected and have an impact on the quality and quantity of our drinking water sources. Our lifestyles have the biggest impact of all on our watersheds. So the next time you turn on the tap, fertilize your lawn, work in your garden or wash your car, remember that everyone lives downstream in a watershed, which means we all need to do our part. Here is the way your watershed works and the ways your Conservation Authority is helping to keep your drinking water safe.

## WETLANDS

Wetlands are the 'workhorses' of our watersheds. They help protect the quality and supply of our groundwater by acting as a natural filter for toxic substances, providing a groundwater recharge area, preventing soil erosion and storing floodwaters. Wetlands are also a source of food and habitat for many fish and wildlife. They cannot fulfill these important functions if we fill them in and build on them.

*Conservation Authorities improve wetland habitat, protect sensitive wetland areas and provide information to increase our understanding of wetlands.*

## GROUNDWATER

Groundwater is often thought of as an underground river or lake. Actually, groundwater only occurs this way in caves. It is usually stored in small spaces between soil particles or in cracks in bedrock, much like a sponge holds water.

Groundwater is easily contaminated by surface actions and since it moves so slowly, it takes a long time for pollution to appear. Because of this, it is very difficult, if not impossible, to clean up.

*Conservation Authorities monitor the quality and quantity of groundwater supplies as well as promote good watershed stewardship practices to prevent contamination of groundwater sources.*

## RUNOFF

Contaminants travel over land and paved areas such as roads and parking lots, washing directly into surface and groundwater sources especially after heavy rains or during snowmelt.

*Conservation Authorities deliver watershed education programs to inform people about healthy practices.*

## WATER TREATMENT SYSTEMS

If you live in a more urban area, your water is treated by a water treatment system. However, since not all contaminants can be removed and it is very expensive to clean up our water, it makes more sense to keep our surface and groundwater clean at their sources.

*Conservation Authorities promote source water protection.*



## Natural Champions

Conservation Authorities are local, science-based environmental organizations that manage Ontario's natural resources on a watershed basis together with landowners, government and other partners.

[www.conservation-ontario.on.ca](http://www.conservation-ontario.on.ca)



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