An At-Home Water Conservation Guide

Quinte CONSERVATION

Who we are

Quinte Conservation is one of Ontario's 36 conservation authorities. We are a community based environmental protection agency located in eastern Ontario.

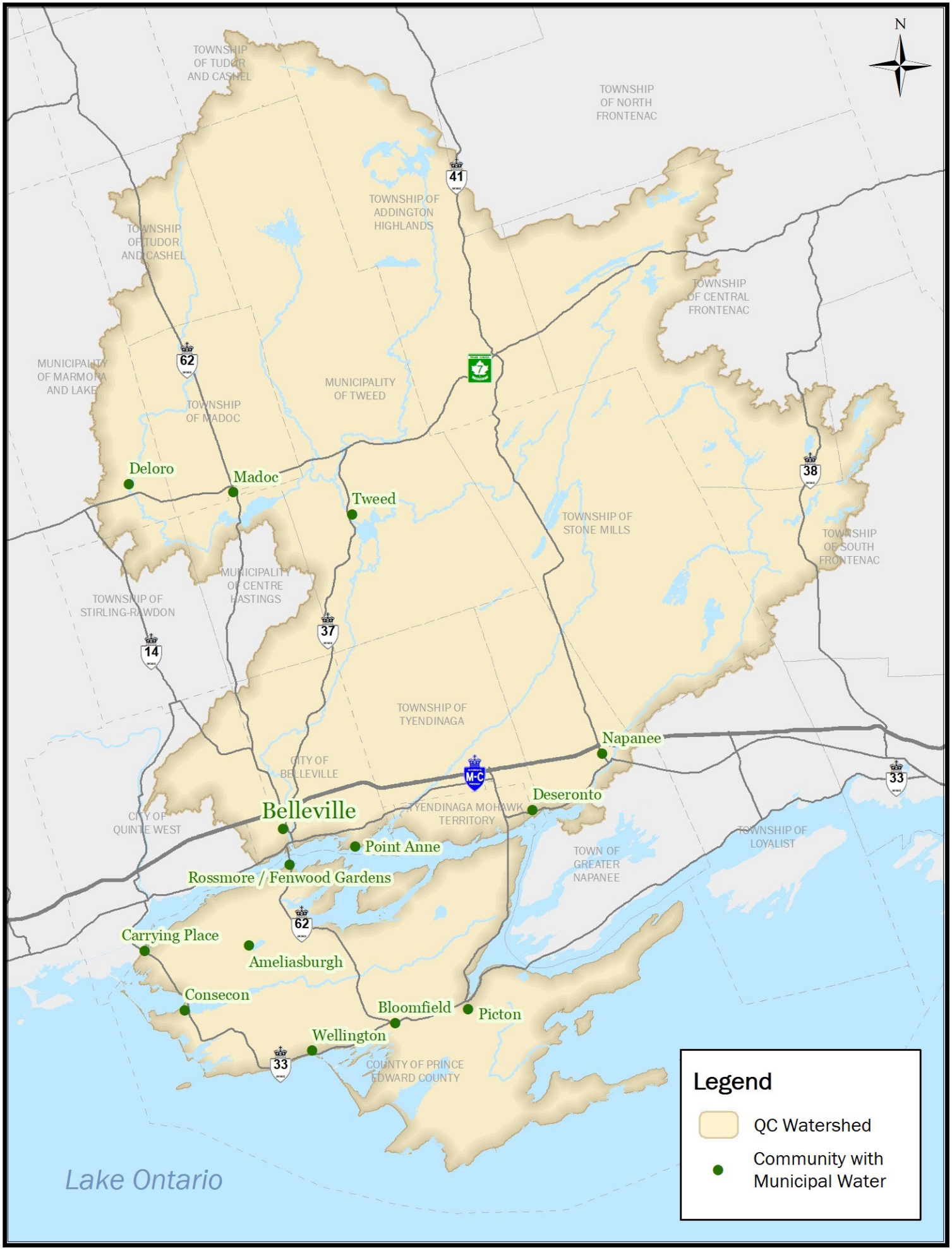
We provide cost-effective environmental expertise and leadership that develops and delivers programs to ensure the healthy coexistence between the community, its environment and its economy.

Our 6,000 square kilometre area spreads across 18 municipalities and includes the drainage basins of the Moira, Napanee and Salmon Rivers and all of Prince Edward County.

We own over 30,000 acres of land ranging from small parcels to large tracts of over 1,000 acres, many with significant natural features.

Our success is based on: local initiative, watershed jurisdiction and partnerships in resource management.

The following map provides a rough outline of the areas throughout the Quinte Watershed that rely on private wells versus municipal wells or drinking water systems.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TOWNSHIP OF TYENDINAGA
Napanee
CITY OF BELLEVILLE
Deseronto
Belleville
TYENDINAGA MOHAWK TERRITORY
CITY OF QUINTE WEST
Point Anne
TOWN OF GREATER NAPANEE
TOWNSHIP OF LOYALIST
Rossmore / Fenwood Gardens
Carrying Place
Ameliasburgh
Consecon
Bloomfield
Picton
Wellington
COUNTY OF PRINCE EDWARD COUNTY
Lake Ontario
Legend
QC Watershed
Community with Municipal Water

Did you know?

Ontarians use an average of 225 litres of water a day. This use ranks Canada as being one of the highest per capita water users in the world. Other countries have a greater water efficiency with some, such as Germany, using as little as 120 litres of water per day. Other countries use less than this yet owing to a lack of freshwater supply. The Unites Nations Educational Scientific and Cultural Organization indicates that humans require between 20 and 50 litres of clean fresh water per day to meet our basic needs.

Why is water conservation important?

Depending on the climate in any given year, we may use fresh water faster than it can naturally be replenished. In periods of drought or of particularly warm weather, water resources are diminished and have fewer opportunities to be refilled, which can lead to longer-term water shortages. Water conservation practices can save thousands of litres of water per person per year. Saving water is in the best interest of you, your family, the environment and the community - for today and for the future.

With simple changes to current home and business practices we can reduce water consumption by 40% or more. The best way to conserve water is to be aware of how you are using it and follow water use by changing a few habit leaks promptly.

Always remember the 3 Rs of water conservation:

Reduce *water usage as much as possible.*

Repair *broken and leaky fixtures to prevent excess water waste.*

Retrofit *plumbing with more recent and efficient fixtures.*

Indoors

In the kitchen

- Install a low-flow faucet aerator - this will reduce water flow by 25-50%
- Soak dishes in soapy water before washing by hand
- When washing dishes, use the least amount of detergent possible - this minimizes rinse water needed
- Fill a bowl with water to wash fruits and vegetables
- Wash only full dishwasher loads
- Load dishes into the dishwasher without rinsing
- Keep a pitcher of water in the fridge rather than running tap water until it is cool enough to drink
- Insulate pipes carrying hot water
- Do not use running water to thaw meat or other frozen foods - defrost food overnight in the refrigerator or by using the defrost setting on your microwave
- Use the right size pot for the job - an oversized pot means more water being heated and more energy being used to do it

Indoors

In the bathroom

- Turn the tap water off while brushing your teeth, shaving or washing your face
- Install a low-flow shower head
- Use the minimum amount of water needed for a bath by closing the drain and only filling the tub one-third full
- Check the toilet for leaks: add blue food colouring to the tank and wait 15 minutes, if the bowl is blue, there is a leak
- Install low-flow toilets as they account for 45% of indoor water use
- If the toilet flush handle frequently sticks in the flush position, letting water run constantly, replace or adjust it
- When waiting for the shower water to warm up, collect the cold water that precedes the hot in a large bucket then use this water for watering plants or other uses
- Don’t flush things down the toilet to dispose of them - throw tissues and other bathroom waste in the garbage can
- Turn off the water while lathering
- Never use the toilet as a means of disposing of garbage; instead use the green bin for tissue and dental floss

Did you know? *65% of water consumption in the home occurs in the bathroom - mainly through toilet flushing and bathing*

Indoors

Around the house

Clothes washers can account for an estimated 20% of household water use!

- Do full loads of laundry instead of partial loads
- Get to know your washing machine's settings to take advantage of its efficiency
- Pre-treat stains as much as possible
- Wash your clothes in tepid or cold water rather than hot water whenever possible

***Did you know?** 93% of the energy consumed by washing machines is used to heat the water! Less water means less energy and a lower cost.*

- Avoid pre-rinsing dishes before placing them in the dishwasher
- Scrape food and grease from your dishes into the garbage or compost bins
- Run the dishwashing cycle only when there is a full load - don't overfill or some dishes will be missed and you may need to rewash
- An efficient dishwasher can use less water than doing dishes by hand, but if this is not a possibility or preference for you, fill a second sink or bowl with clean water for rinsing.

***Did you know?** Running water to rinse can waste up to 9 litres of water per minute.*

- Turn off your humidifer when leaving the room and when the season is over
- Use the water from your dehumidifier to water your plants

Caring for your appliances

Maintain your appliances and equipment regularly to extend their lifespan

- Repair your appliances by using the owner's manual or repair guide when you can, or consult a professional repair service
- Once your appliances have become too old and irreparable, replace them in a timely fashion with water-efficient models, which can reduce water consumption by 35 to 50%
- Watch out for leaks, clogs, breaks, and dirt buildup, as well as wear and tear to keep your appliances in good condition

Outdoors

Backyards and outdoor spaces are a great way to increase living space and enjoy your property. Due to outdoor water use, municipal water consumption can increase significantly during the summer.

In the garden

- Only water your lawn if it needs it; if it springs back when you step on it, it does not need watering
- Cut grass to a higher level (5 - 8 cm) to reduce evaporation
- Water vegetable gardens in the morning, near the roots, and by hand
- Do not let children play in running water - consider buying a kiddy pool or water toys
- Use a pool cover on your pool when not in use to reduce evaporation
- Install rain barrels on the gutter downspouts to catch storm water and use it to water your flower and vegetable gardens or wash the car
- Increase water retention in soil by adding compost or peat and mulching around trees and shrubs to retain moisture
- Only water shrubs and trees once a week if there is no natural rainfall
- Use native grasses and plants in your garden as they require less water
- Pull planters into the shade to avoid the hot afternoon sun
- Plant shade trees to shelter your home and garden from hot sun
- Improve your soil with compost and autumn leaves so it’s more nutritious and holds water better
- Set sprinklers to water the lawn, not sidewalks and driveways
- Install a shut-off valve on your hose so it only runs when in use
- Wash the car near your garden or lawn to water your plants at the same time
- Check your sprinkler or irrigation systems regularly for any leaks and fix them
- Wash cars for safety only, (windshield, windows and headlights) using a bucket
- Wash pets outdoors in an area of the yard that needs water
- Use a broom, not a hose to clean off your driveway

Outdoors

In the yard

When landscaping, ask yourself these questions:

- What are your plans for your yard? Who will be using it?
- What type of soil is in your yard?
- What are the natural conditions of your property?
- How much time are you ready to commit to maintaining your yard?

Planning your landscaping ahead of time based on the areas of sun and shade, the slope of the land, the moist and dry regions, and the amount of time your property spends in each of these conditions will inform which plants will thrive in each area and reduce their need to be watered and tended to.

Cisterns and grey water

In areas that do not have an adequate water supply to support its residents, cisterns or reservoirs are an effective way to safely store hauled municipally treated water in order to meet household demand.

Some circumstances in which low yield wells are being used require the installation of trickle systems to assist in meeting water demand for any given household. This system can provide relief during periods of high water usage by allowing water to be pumped from the well into a larger storage tank, which then is delivered by a second pump to the house. As water is used up from the tank over the course of a day, fresh water is replenished in the tank by "trickled" in from the well. Should this region experience more severe water shortages, these tanks can be repurposed as cisterns to store hauled water.

Did You Know? *Poorly or improperly maintained cisterns are more susceptible to contamination.*

Always consult the relevant guidelines and Ontario Building code when installing and operating cisterns.

Using a Cistern for Residential Water Supply

Some rural residents use cisterns to store hauled water to meet their water needs.

Always fill your properly constructed cistern with municipally treated water provided by an approved water hauler.

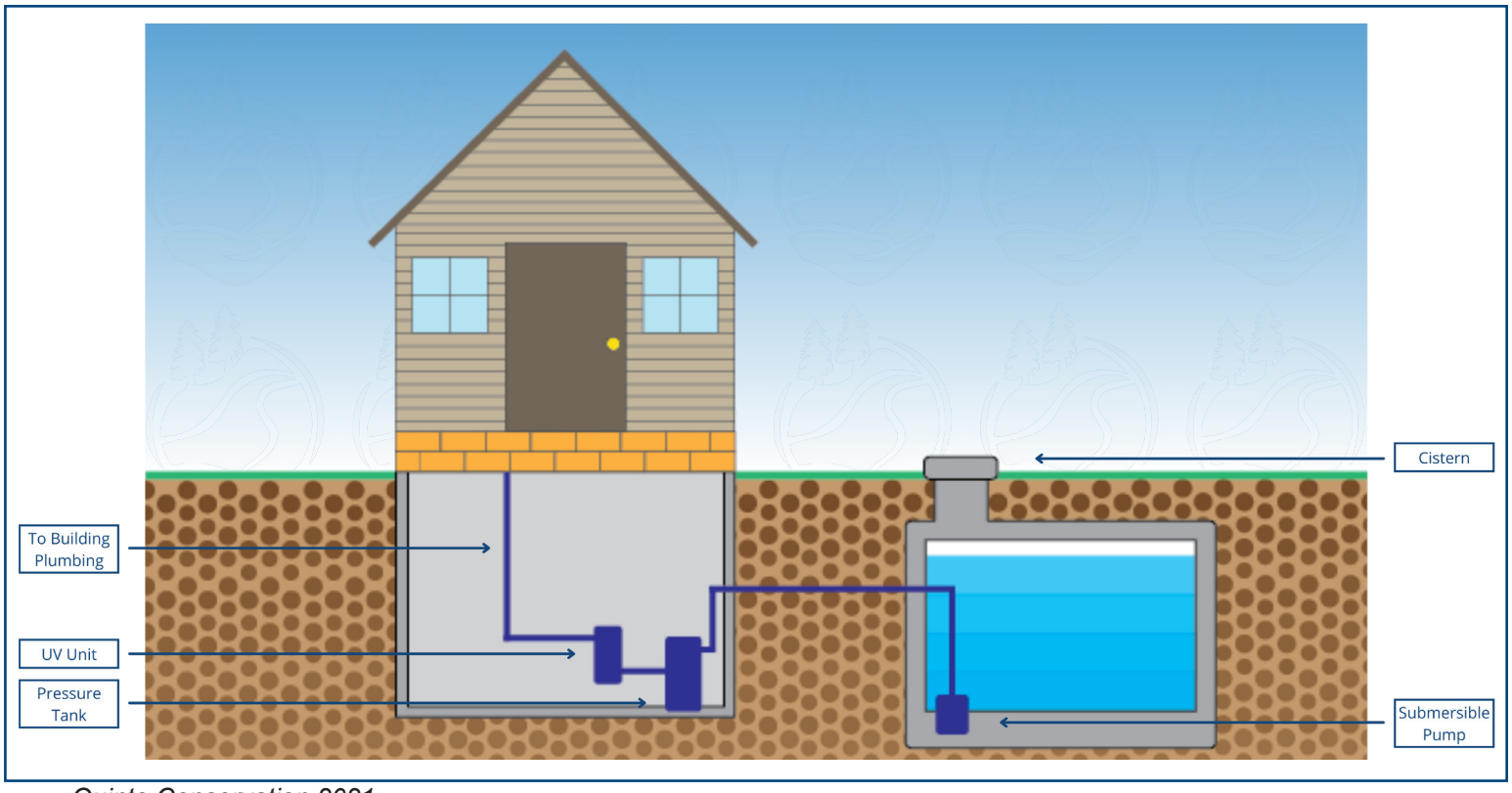
Proper maintenance and care of a cistern is required to ensure a safe water supply.

Cistern Container

Any system receiving transported water must ensure that the storage container is constructed with materials that do not contain any impurities that run the risk of contaminating the water. As such, maintenance of the system must prevent the introduction of surface water or other foreign materials into the treated water. Prevention of such materials can be done by ensuring that the cistern contains a screened vent to protect against insects and vermin entering the vent, and that it is not connected to the rainwater drain system.

Prevent water from freezing by burying cisterns below the frost line or keeping them inside a heated building. Always ensure to include an access point, watertight lid, fill point, and vented overflow pipe in the construction of cisterns.

A Typical Outdoor Cistern



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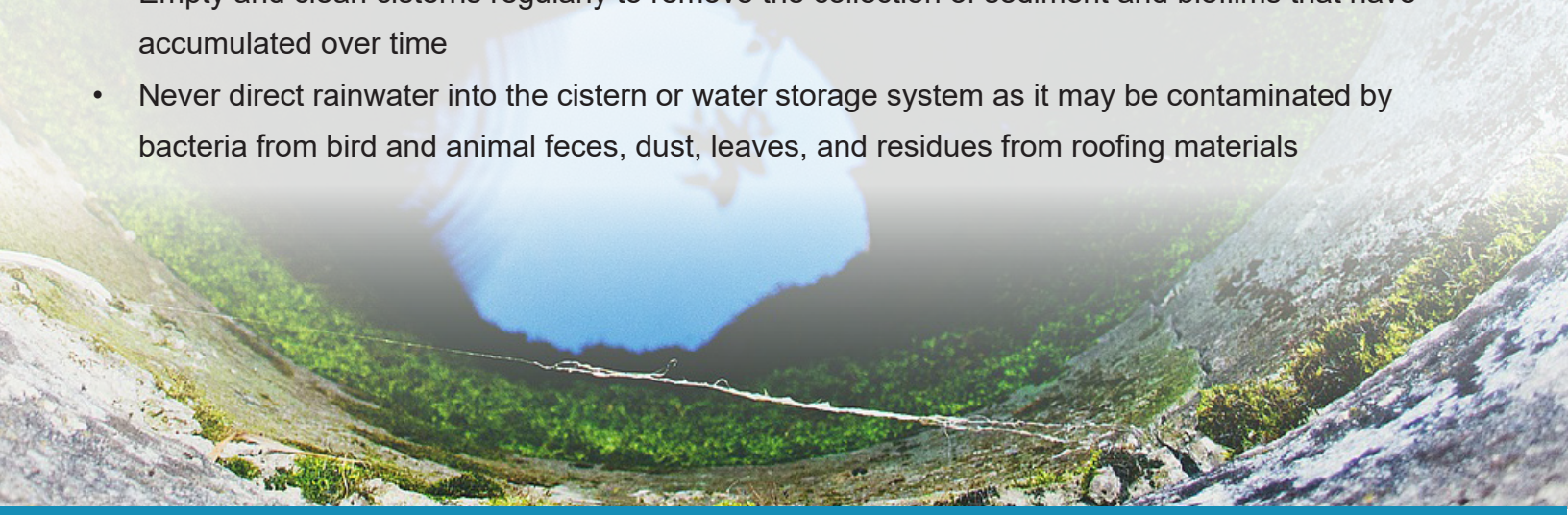
Caring for your Cistern

To avoid illness as a result of a contaminated cistern or reservoir, regular maintenance is necessary by periodically inspecting, cleaning, and disinfecting your equipment.

Did You Know? *Maintenace and inspection must be done by a qualified professional.*

- Inspect your cistern annually for sediment, bio-film, debris, cracks and seepage, improprely fitting lids, and broken vent screens
- Ensure that the ground around the cistern slopes away from the hatch and any vents
- Test the water after any repairs, if the water has not been used for an extended period of time, after flooding, chages are made to the use of surrounding land, and if there is a change in water clarity, colour, odour, or taste
- Stop drinking the water immediately if results from testing determine that the water is unsafe
- Maintain cisterns in a state that will prevent the entrance of insects, rodents, and surface runoff
- Empty and clean cisterns regularly to remove the collection of sediment and biofilms that have accumulated over time
- Never direct rainwater into the cistern or water storage system as it may be contaminated by bacteria from bird and animal feces, dust, leaves, and residues from roofing materials



Dealing with Drought in the Quinte Region

Visit the Quinte Conservation Website to see alert level for low water conditions and watch for news releases. Review the Quinte Region Drought plan link on our website to the plan to obtain more information about the low water program, different warning levels and how to deal with drought. Consider the following basic information:

For Quinte Region residents that rely on private wells and do not have access to a reliable backup water source the impact of drought may be significant. The groundwater resources of the region are not favorable for drilling deeper wells into less drought prone aquifers as these aquifers typically yield water of poor quality (i.e. salt which is not potable).

In situations where supply shortages from groundwater systems are experienced these users must generally turn to the following methods of dealing with drought:

Storage: Importing of water from a drought resilient source (i.e. not surface water features that have been impacted by drought),
Water Conservation: Implement water conservation and efficiency measures (i.e. repair leaks and install low flow fixtures), and
Water Recycling: Implement methods that recycle water (i.e. recycling of grey water for toilet flushing, use rain barrels to catch water for outside use).

Water Well Management

Visit the Quinte Conservation website to view the quinte region drought plan and give consideration to the following information as taken from the *Ministry of the Environment Conservation and Parks* factsheet, Managing your Water Well in Times of Water Shortage.

Implement water conservation practices by reviewing and assessing the components of your pressure and plumbing systems will determine where you could benefit from savings and improvements.

Lower your pump or pump intake deeper into the well depending on your pump's specifications in order to increase the efficacy of your equipment.

Change your pump to a larger option if your existing pumping equipment is no longer able to reach the recommended pumping rate.

Increase pressure tank size to allow for additional water storage in the pressure system, which can provide relief during a dry period.

Rehabilitate your well if it is exhibiting decreased yield while maintaining its water level as this could indicate a partial obstruction at the bottom of your well.

Deepen the existing well in periods of water shortage after consulting water well records and hydrogeological information.

Put in a temporary above-ground water storage tank to support any increased needs during periods of water shortage to provide short-term relief.

Construct a new well after completing remedial work on your well and if you continue to experience water shortage problems.

Always consult a licensed well contractor, qualified pump supplier, or Water Well Help Desk before performing alterations to your well or its equipment.

All work at constructing and installing pumps in wells must be done in accordance with Ontario Regulation 903. Such work is recommended as being completed by a licensed water well contractor in accordance with Ontario Regulation 903.

Learn more about water conservation and all relevant work performed by Quinte Conservation in the fight to protect water

QuinteConservation.ca | 613-968-3434

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