



WATER TALK

BE WELL AWARE:

Ensure your well water is safe during and after emergencies

Extreme weather, floods, fire, and drought: these are just a few examples of events that can damage your well and contaminate your water. The water can become contaminated by microorganisms or chemicals without any noticeable change in taste, odour, or clarity.

Do you know what to do to make sure your well water is safe during and after an emergency?

Remember to always follow any specific advice from your local public health authority. Get to know the resources available to private well owners in your local area.

Floods

Flood waters can completely submerge your well head or pumping system. Wet or damaged electrical equipment can cause serious electrical shocks. After a flood, don't turn on the well pump! There is a risk of electrical shock. Hire a certified well contractor to inspect your well and its wiring before use.

Flooding can contaminate well water with sewage and other pollutants. During a flood, don't use well water for drinking, cooking, bathing, showering or brushing teeth. After a flood, don't use your well water until you get advice from your local health authority on clean-up, well disinfection and water testing to make sure your water is safe to use. See – *Be Well Aware – Protect and clean your well.*

Droughts

If you live in an area that is prone to drought or if you have a shallow well, you might experience water shortages. To avoid running out of water during the times of drought,



you should reduce your pumping rate, conserve water and consider installing a storage tank. You can also bring in extra water from a different source to lower the demand on your well and aquifer (the aquifer is the underground layer that contains water).

Do not over-pump your well because that can lead to serious problems like sediment plugging where particles of sand, silt, clay or other ground material may clog the well, and may even cause premature well failure.

If water shortages are an ongoing problem, you may have to find a different water supply. This could include drilling another, deeper well, bringing in water from a municipal source or using treated surface water. See – *Be Well Aware – Build and maintain your well.*



Freezing

During the winter, extreme low temperatures may cause parts of your water system to freeze. This could leave you with no water. To prevent freezing, make sure that all water lines are buried below the local frost level, insulated and heated, or located within a heated space like a pump house. If you are worried a pipe will freeze, open the faucet served by the exposed pipe and let it drip.

If your water pipes freeze, hot air or steam can be used to thaw them. Get advice from a licensed well contractor or a plumber before using your well if it has been frozen.



Fire

If a fire occurs close to your water well, it may damage the electrical wiring, pumping equipment, well casing and well cap. Toxic chemicals coming from melting well parts or fire-suppressant materials can contaminate your water. Emergency vehicles may cause physical damage to the well casing. Damage to the wellhead and the loss of vegetation and soil layers around your well may make it easier for sediment and surface water to enter and contaminate your well.

If your well is damaged by fire, contact a licensed water well contractor to assess the damage and repair the well. Before drinking the water, have it tested for bacterial and chemical contamination. See – *Be Well Aware – Test your well water*. Get advice from your local public health authority to make sure the water is safe to use.



Power outage

Power outages can disrupt your water supply. Depending on the cause, power outages can last hours, days or even weeks. Normally, an electric water pump draws groundwater from the well and maintains the water pressure in your home. This pressure forms a physical barrier that stops contaminants from entering the water system.

During a power outage, a water well system will lose pressure if faucets are opened. This may allow contamination into the water system. During long power outages, do not open faucets, take showers, or flush toilets. While your water system may have several litres of water in storage, using the water while the power is out depressurizes the system and increases the chances of contamination.

If your water system loses all of its pressure and no water comes out of the faucets, make sure that you have your well water tested before using it. See – *Be Well Aware – Test your well water*. If you have a treatment system for your well, make sure it is running properly once the power is back on. Before drinking the water, flush all lines by letting the water run for a few minutes. If you have a treatment system for your water, contact the manufacturer about any other cleaning steps you may need for your specific system.

How will I know my water is safe to drink after an emergency?

Before using your well, contact your local public health authority for advice on water quality and testing of your well water. The health authority will help you understand your test results and advise you on actions you can take to fix well water problems. Do not drink your water until you are told it is okay to do so. See – *Be Well Aware – Test your well water*.



Need more information?

For more information on drinking water quality:

Visit Health Canada's Water Quality website

www.canada.ca/en/health-canada/topics/health-environment/water-quality-health.html

Email: hc.water-eau.sc@canada.ca

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