

Flooding and Well Water Safety

During a flood, there is an increased risk that drinking water wells may become contaminated with bacteria and/or any other contaminants that may be present in the flood water. Any well water system, whether deep or shallow, can become contaminated when flooding occurs.

To reduce the risk of well water contamination during a flood, homeowners at risk to flooding are advised to do the following:

- Shut off electrical power to the well pump.
- If time permits, contact a licensed well driller or plumber to inspect and fix any cracked or damaged well casing, and install a waterproof or flood proof well seal.
- Alternatively, securely wrap the well casing and vented well cap in heavy plastic and secure with electrical tape.
- Place sandbags around the well to protect the well from floating debris in floodwaters.

Homeowners are responsible for assessing the risk to their wells and should boil water used for drinking and cooking if the risk is high.

Once the flood waters recede, everyone with a private water supply that has been affected by flooding should get a bacteria test done before resuming usual water consumption. Laboratory contact information can be found under 'Steps for testing well water'.

Risk factors for well water

There is an increased risk of contamination of well water when:

- Wells or aquifers are shallow and/or the overlying soils are permeable (ex: sand or gravel)
- Wells are located in pits or depressions where water can pool
- wells have rusted, cracked or unsealed casings that do not extend at least 30 centimeters above ground
- wells are near septic tanks or fields, barns, feed lots or other potential sources of contamination
- wells are near unsealed abandoned wells, sink holes, quarries or other potential groundwater contamination pathways
- wells close to yours are flooded and may be contaminated
- wells are in close proximity to surface water sources, such as a stream, river or lake

When boiling is necessary

If any of the above risk factors pertain to your well and your property is experiencing flooding, or if you notice a change in the colour, clarity, taste or odour of your well water; then tap water used for drinking or for preparing food should be brought to a rolling boil for one minute.

Once boiled, the water is safe to be used for:

- drinking
- making infant formula and juices
- cooking
- making ice
- washing fruits and vegetables
- brushing teeth

An alternative to boiling water is to use water from a known safe source such as bottled water. For additional information please see [Manitoba's Boil Water Advisory Fact Sheet #2 - Boil Water Advisory for Private Well Owners](#)

Using water for other domestic purposes

Tap water from flood-affected wells can be used for:

- laundry
- bathing
- washing dishes

Adults, teenagers and older children can use the water to shower but should avoid swallowing

Testing well water

Once flood conditions have subsided, your well water should be tested by an accredited laboratory for bacterial contamination. You should continue to boil your water or use bottled water until testing confirms the water is safe for drinking or food preparation.

Homeowners are responsible for collecting their own well water samples. For instructions on how to collect a proper water sample, please see [Manitoba's Well Water Fact Sheet #2 - How to Test Well Water for Bacteria](#), and accompanying instructional video.

Sample bottles, a sample submission form, and instructions for sampling are available from most rural municipal offices, Manitoba Sustainable Development, or directly from the laboratory. It is very important to follow the sampling instructions provided by the laboratory and ensure that the sample submission form includes accurate contact information and well location

information (ex: legal land description).

Bacteria testing subsidy program

The Manitoba government offers private water system owners a once-a-year subsidy for bacteriological (total coliform and *E. coli*) analysis of their drinking water through Horizon Lab. If the first sample result indicates that bacteria are present in the water, homeowners will receive a coupon from the lab for one resample free of charge.

The total price to homeowners for the once-a-year subsidized sample is \$22.31 (tax included).

Horizon Laboratory Ltd.
4055 Portage Avenue
Winnipeg, MB R3K 2E8
Phone: 204-488-2035

Other accredited laboratories

Three other laboratories in Manitoba are accredited to bacteriological testing of water and offer this service to private well owners. The province doesn't subsidize testing at these laboratories and private well owners are encouraged to contact the laboratory directly for pricing.

Maxxam Analytics
Unit D, 675 Berry Street
Winnipeg, MB R3H 1A7
Phone: 204-772-7276
Toll Free: 1-866-800-6208

ALS Environmental
1329 Niakwa Rd East, Unit 12
Winnipeg, MB R2J 3T4
Phone: 204-255-9720
Toll Free: 1-800-607-7555
After Hours: 204-784-6677

Central Testing Laboratory Ltd.
Unit 9, 851 Lagimodiere Boulevard
Winnipeg, MB R2J 3K4
Phone: 204-237-9128

Submitting well water samples

Sample bottles need to be dropped off at one of the above mentioned laboratories within 24 hours of collection. Water samples must remain sealed and kept cool. Samples that get too warm, freeze, or sit too long will give incorrect results.

Receiving water samples results

Once testing is completed, the results for your well water sample will be forwarded to you by the laboratory along with follow-up instructions if the well showed signs of contamination. If you do not receive the results within two weeks of submission, you should follow up with the laboratory.

If there is an immediate concern about the safety of your water (total coliform >10 and/or *E. coli* present), the laboratory, or a drinking water officer, will try to establish live voice communication with you within a few days following sample submission to advise you of the concern.

Visit the Office of Drinking Water website at www.manitoba.ca/drinkingwater or call the Private Well, Education and Outreach Co-ordinator at 204-948-1351 if you have questions about your results or on water use.

Well restoration after flooding subsides

Extensive well restoration may be needed if your well has been structurally damaged, completely submerged, overtopped, or if you've seen flood water draining into your well as opposed to wells that may have had a little seepage.

Floodwater and sediment can damage pumps and their electrical components. All assessments, repairs and replacements should be done by qualified professionals where this type of extensive damage has occurred. It may not be safe to turn on your pump until your well is cleaned out, and all sediment and floodwater are removed.

Well owners who have experienced this type of problem should contact the Groundwater Management Section at 204-945-6959 or other appropriately qualified professionals (ex: licensed well drillers or plumbers) in their local area.

For more information

For more information on drinking water safety, water treatment devices, help with interpreting your drinking water quality results, or to receive a copy of other drinking water fact sheets, please visit the Office of Drinking Water website at www.manitoba.ca/drinkingwater or contact

the Private Well, Education and Outreach Co-ordinator at 204-948-1351. To locate a local office near you, please refer to the website http://www.manitoba.ca/sd/water/drinking-water/pubs/odw_contact.pdf

For information on certification for water treatment devices, visit <http://www.nsf.org>.
For information on well driller reports, well construction, well sealing, or for a listing of licensed well drillers, contact 204-945-6959.

For health information, contact Health Links-Info Santé at 204-788-8200 in Winnipeg; toll free at 1-888-315-9257 or contact your local public health office. To find your nearest office, go to: <http://www.manitoba.ca/health/publichealth/offices.html>.