

What's in your well water? If you don't test, you won't know!

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Are you taking unnecessary risks with your health? A study out of the University of Waterloo found that 65% of well owners don't test their drinking water. Repeated studies find about 30-50% of private wells in Ontario fail to meet drinking water standards for one or more contaminants.

The main reasons for failure are contamination from local sources of fecal bacteria and a high concentration of nitrate. Health Canada estimates that unsafe drinking water causes 90,000 illnesses and 90 deaths *every year*. This is largely preventable, because the test for bacteria is free through your local Health Unit.

In general, groundwater is an excellent source of water. Nevertheless, you need to test your well water regularly and maintain your well to ensure a safe water supply. Keep your test results, so you can monitor changes that could indicate a problem. Remember - you cannot always taste, smell or see bacteria, nitrate or other contaminants.

Spring and fall are good times to test, as well as 48 hours after a heavy rain in the summer. Sampling during wet conditions helps determine if surface contaminants are being carried into your well by rainwater or melting snow.

Test, test and test again!

- **FREE bacteria test kits and testing services** are available through your local Health Unit. To find a location near you call 1-866-532-3161.
- Test your well water at least three times a year for harmful bacteria such as *E. coli*. Also test for bacteria after plumbing work, well repairs or flooding.
- If you have a water treatment system, test both the raw and treated water.
- When you drop off your sample, pick up an empty bottle for your next test.

Testing for other contaminants:

- Remember, the Health Unit's FREE test is only for bacteria. Well water should also be tested occasionally for other chemicals, such as nitrate, minerals, fuels/oils, pesticides and metals.



Well water testing should be done by a certified laboratory. Take advantage of the Health Unit's FREE water test at least 3 times a year.

Test results should be free of *E. coli* and total coliforms. If your water test indicates a problem, seek guidance from the Health Unit. Find and correct the source of the contamination - it's usually very local.

By protecting your well, you also help protect the water quality in wells around you.

- Testing for nitrate is particularly important if there are pregnant women, infants or toddlers drinking the water. High nitrate can cause methemoglobinemia, commonly known as blue-baby syndrome. Nitrate results should be below 10 mg/L.
- The Ontario Ground Water Association and Well Wise offer at-cost water testing packages and more detailed bacterial testing to help determine the contaminant source (call 519-245-7194 to arrange a test).

What to do if your water is contaminated

If your well water tests positive for bacteria, do not drink the water without boiling or treating it. The well may need to be chlorinated to eliminate a one-time case of bacterial contamination. Well disinfection requires care and skill: too much or too little chlorine can cause problems, so seek guidance from the Health Unit. Disinfection is neither a long-term solution nor a substitute for addressing the source of the problem. Remember that treatment systems can fail, so if your well water is contaminated, start by finding and correcting sources of pollution (e.g., a failing septic system or structural problems with your well).

Some well owners may be able to connect to municipal water. Instead of an individual well owner being responsible for the maintenance and repair of their private well, the municipality is responsible for testing, treatment and maintaining infrastructure. Municipal water is typically more reliable, frequently tested and meets drinking water standards. If you connect to municipal water, be sure your unused well is properly decommissioned by a licensed well contractor. It's the law, and it will help keep groundwater sources safe. Contact your local Conservation Authority to see if there are grants available to offset some of the costs.

For residents living very close to municipal water sources, there may be financial assistance to upgrade or decommission their well through the Ontario Drinking Water Stewardship Program. This program exists to help reduce threats to local municipal drinking water sources. The program runs until December 1, 2012 or until all the funding is committed, so it's not too late for landowners within designated highly vulnerable areas to get involved.

Protecting your well and groundwater starts at home. Protect your family's health by testing, staying informed about your well water quality and your well's condition. Watch for an upcoming article on common well problems and how to care for your well.

Contact Shannon Stephens at the NVCA for more information: 705-424-1479 ext 239 or sstephens@nvca.on.ca. Stewardship staff can provide advice on projects and determine if there are grant funds available to help.



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