

Well-Water Testing Clinic Information & Instructions



Every summer, as part of our Michigan Agriculture Environmental Assurance Program (MAEAP), the Manistee Conservation offers a free, annual nitrate and nitrite testing service on a designated date in July or August from 9:30 am to 4:30 pm. The testing date will be announced in your local newspaper and to all of our email contacts. Testing takes place at the Manistee Conservation District Office in Bear Lake, located at 8840 Chippewa Hwy in Bear Lake, MI 49614.

Why it's important: unlike municipal water sources, groundwater from private wells is not easily de-nitrified, due to its lack of contact with oxygen. Special testing for

nitrates and nitrites is recommended because nitrogen can build up in the groundwater aquifer from excessive fertilizer inputs or poorly functioning septic systems. It can therefore be unknowingly be present in drinking water, as it has no distinguishing taste, smell or color. Screening is particularly important to screen to prevent nitrite poisoning in infants, also known as methemoglobinemia, or blue baby syndrome.

Infants younger than 6 months old are particularly susceptible to nitrate poisoning. Newborn infants have little acid in their digestive tracts for digesting food. Instead, they depend on bacteria present in their digestive system at birth to help them break down food. These bacteria can also change nitrate to toxic nitrite (NO₂). Generally, by the time infants reach the age of 6 months, hydrochloric acid levels in their stomachs rise and kill most of the bacteria that convert nitrate to nitrite. The major symptom of methemoglobinemia is bluish skin color, most noticeably around the eyes and mouth. Doctors now recommend using bottled water to make formula when nitrate- nitrogen levels exceed the U.S. Public Health Service drinking water standard of 10 parts per million.

Please follow these guidelines in preparation for bringing in your water to the clinic.

Note: Samples must be less than 48 hours old for a valid result.

1. Go to our website and fill out the **LANDOWNER Information Form** which can be obtained by visiting our website <https://www.manisteedc2.org/water-testing-day--information.html>. You can also stop by the office in person, or email the district at: susan.spencer@macd.org to request a form.
2. Pick a tap that supplies water that has not been run through any treatment devices (water softener, carbon filter, etc.). An outdoor faucet often works well.
3. Run tap water for 20 minutes before collecting the sample. This gives the pump time to flush the water pressure tank and plumbing so you can collect a valid sample. Disconnect any hoses before collecting the sample; do not sample through a hose. Rinse the sample bottle and lid thoroughly in the water to be sampled; then fill and cap the bottle.
4. Label a clean glass bottle or mason jar clearly with your name, the sampling date, and the well name (cottage well, Mom's well, etc.) using a waterproof marker or label.
5. Keep the sample dark and cold (on ice or refrigerated) until it is dropped off.

All results are confidential. You can expect to be mailed a copy of your results in 8 to 10 weeks, with information about what to do if the concentration of nitrate or nitrite is too high. You will NOT hear back if your sample test results are normal. Be sure to fill out the LANDOWNER INFORMATION form ***completely*** before bringing your water sample to the drop-off. ***Note that we will need a complete mailing address to get your results back to you.*** If you have questions or need more information, contact the **Manistee Conservation District Office** at **231-889-9666** or email MAEAP Technician, Jamie VanDerZanden, at jamie.vanderzanden@macd.org.