

Why and How to Test Your Well Water

By Bill Rubin, Guest Author

Over three million North Carolinians get their drinking water from private wells, but not all private wells provide safe, drinkable water. Nothing's more important to your quality of life and health than having well water you KNOW is safe. Store-bought test kits don't give you the detection level you need to ensure water safety, and generally only test for one or two possible contaminants. Luckily our state can help you test your water to be sure it's pure.

In 2008, as a result of advocacy by Clean Water for NC and other safe water groups, as well as Environmental Health Directors, well water testing became mandatory for all new North Carolina wells. If your well was drilled after July, 2008 then you can look up your original well water analysis with your [county environmental health director or well program director](#), and request a new set of tests every few years, to be sure nothing's changed. But if you have a well drilled before 2008, it might have never been tested for either bacterial or chemical contamination. We strongly recommend you invest the \$150 to \$200 to test for the most common bacterial and chemical contaminants, including contaminants like arsenic that occur naturally.

Of course, you'll want to test water that tastes, smells, or looks wrong. But clear and good-tasting water can be unsafe too. Nearby septic systems or unsealed wells can contaminate your water with fecal coliform bacteria. Neighboring farm or automotive activity can contaminate your well with pesticides, herbicides, nitrates, or petroleum. Rock formations into which your well was drilled can release arsenic or radium, both very toxic.

If you live near coal ash pits or a coal-fired power plant, contaminants such as hexavalent chromium can leach from the coal ash into the groundwater. If fracking ever comes to your area it's critical to have your well analyzed first for as many possible contaminants as possible, because fracking has been known to contaminate groundwater. If you are expecting, or have an infant, it's very important to test for nitrites, which can cause deadly "blue baby" syndrome.

Clean Water for North Carolina recommends testing for total coliform, arsenic, lead, zinc, other metals, as well as nitrates, and nitrites every 3-5 years. This is the minimum standard statewide well testing recommendation. NC Health and Human Services has a similar recommended [testing schedule](#).

How do you test? The first step is to call your county environmental health director. If you're not sure what to test for, your county director or Clean Water for North Carolina can help with recommendations. Wake County Environmental Services handles well testing for the county, rather than the Health Departments in other Counties. They say "we understand that this is new territory for many well owners, and we want to help them feel comfortable that they are drinking safe water."

Unfortunately our legislature has cut well program budgets in recent years, removing subsidies and thus making tests more expensive. [This table](#) will enable you to find your county's recent price schedule. Contact your county environmental director if you're concerned about your ability to pay, as some counties offer assistance.

Once you place your order a trained member of county staff will come to your well and collect water samples. You can collect samples for fecal coliform and inorganics on your own, but the

majority of tests require a trained professional. The county official will then send the samples to a state or private lab to be analyzed. The results will be sent back between a day and a few weeks later. Then your county well program will notify you of your results. Call the county well program or Clean Water for NC if you need help interpreting the results.

You may be instructed to disinfect your well, make repairs, install a filter, or take other actions. According to Wake Environmental Services “nearly all well problems can be fixed, but the first step is knowing what is in the water to begin with.”

Special thanks to Wake County Environmental Services Dept. for answering many well-testing questions.