



Is Your Well Water Safe to Drink?

Thirty-five percent of New Hampshire residents drink water drawn from private wells. Though the state has strict requirements for testing and monitoring public water supplies, no state mandates require testing the water in private wells.

Because at least half the private wells tested across the state are contaminated with substances known to pose a threat to human health, the NH Department of Environmental Services (DES) urges private well owners to test their water periodically.

State officials are especially concerned about contamination by high levels of radon and arsenic, two naturally-occurring materials well-known to pose risks to human health.

According to Bernie Lucey, senior engineer with the state's Drinking Water Protection Program, 56 percent of New Hampshire bedrock wells tested contain the radioactive element radon at levels exceeding the state's suggested standard. Up to 15 percent would flunk the U.S. Environmental Protection Agency's proposed standard for arsenic. Other naturally-occurring drinking water contaminants that pose health risks at high levels include radium, uranium and fluoride.

According to Lucey, none of these naturally occurring constituents alters the taste, color or odor of the water. The only way homeowners know their water is safe is to have it analyzed in a laboratory.

In addition to contamination from naturally-occurring materials, well water can also become contaminated with solvents, pesticides, volatile organic compounds contained in gasoline, and other synthetic chemicals when spills or leaks occur nearby. Groundwater migrates through porous sands and gravels and through cracks in bedrock, carrying any contaminants to nearby wells.

DES suggests testing residential wells soon after a new well is installed, every time a property changes owners, routinely every three to five years, and whenever users notice changes in the taste, smell or color of the water.

The comprehensive, three-part test DES recommends for home wells includes (1) the "standard analysis," which tests for bacteria, hardness, iron, manganese, chloride, fluoride, nitrates, sodium, lead, copper, and arsenic; (2) a test for volatile organic compounds (VOC); and (3) tests for radioactive elements: radium, uranium and gross alpha. Cost for the comprehensive testing is \$245.

The tests can be processed through the DES water testing lab or through a private laboratory. For detailed information about state lab testing, fees, and sampling instructions, visit <http://www.des.state.nh.us/factsheets/ws/ws-2-1.htm> or call **271-3445**. For a list of certified private labs, visit www.des.state.nh.us/nhelap

Officials stress that the mere presence of contaminants in well water doesn't imply a problem, but when the levels exceed state and federal health standards, people should take appropriate steps to correct the situation. Contaminated water can often be treated by various methods, such as aeration and carbon filtration, so the water is rendered safe to drink.

But treatment — especially for radon contamination — can be extremely expensive. Some elderly and low-income people may qualify for grants or loans to cover the costs of treatment through the federal Rural Development Agency's "504 Program." For information about this program in Carroll and Coos Counties, call 752-1328; in Belknap, Hillsborough and Merrimack Counties, call 223-6035; in Grafton, call 747-2777; in Rockingham and Strafford, call 678-4650; and in Cheshire and Sullivan, call 756-3230.

For more information on DES's private well initiative, access to a series of excellent fact sheets and a list of accredited private analytical laboratories visit http://www.des.state.nh.us/well_testing.htm. Click on "NHDES Laboratory Services" at the DES site and you'll even find a link to a form for ordering water sampling bottles online at no additional charge.

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