

# Protect Your Family's Health

## Test Your Water Today for All Common Pollutants



### Why should I test my well water?

Unhealthy levels of various contaminants are common in private wells in New Hampshire. Some of these contaminants have been linked to cancer and other diseases. Most of these contaminants have no taste, smell or color. You won't know what's in your well water unless you have it tested by a laboratory. State and local laws generally do not require testing of private well water. If you have a private well, the New Hampshire Department of Environmental Services (NHDES) strongly recommends that you have your well water tested – for all of the most common pollutants – to help protect your family's health. If a test shows that your well water has contaminants in it, NHDES can help you consider water treatment choices that work best for the level of contaminants in your water.

### How do pollutants get into well water?

Well water comes from rain and snow that soaks into the ground. As water seeps through the soil and rock, it can pick up pollutants and other materials that are present on or in the ground.

Some contaminants that are commonly found in well water at unsafe levels come from the rocks and soil that the water flows through. The most common in New Hampshire are bacteria, radon, arsenic, manganese, uranium and radium. For example, the U.S. Geological Survey estimates that one in five private wells in New Hampshire has more arsenic than is allowed in public water systems.

Other contaminants get into well water from human activities. Gasoline storage and spills, industrial/commercial activities, improper waste disposal and road salting can introduce toxic substances to the ground. Even typical residential activities, such as using fertilizers or pesticides too close to a well, spilling fuel and improperly disposing of household chemicals can contaminate well water.

### What should I test my well water for?

The following tests identify common contaminants found in well water in New Hampshire. Many private wells have been tested according to the requirements of mortgage companies or at the recommendation of well drillers, water treatment vendors, etc., but often those tests do not include all of the common contaminants that can harm your health, especially if they were done years ago. The list recommended in this flier provides a cost-effective, reasonable overview of a well's water quality. Contact an accredited laboratory for availability and pricing. *It is not necessary to do all of these tests at one time.*

#### 💧 Standard Analysis

This covers the most common contaminants (see the list on the next page). Some of these contaminants pose health-related concerns, while others only affect aesthetics (taste and odor).

#### 💧 Radiological Analysis

The rocks in New Hampshire contain naturally occurring radioactive elements that dissolve easily in well water. The recommended radiological analysis will test for uranium, analytical gross alpha and radon.

Testing for radon in air may have been required by your mortgage company; however, radon and other radioactive elements are also common in well water in New Hampshire. NHDES estimates that approximately 55 percent of private wells in New Hampshire exceed NHDES' advisory level for radon.

#### 💧 Volatile Organic Compounds (VOCs)

The most common VOCs come from compounds found in gasoline, such as MtBE and benzene, and from industrial solvents. MtBE can be found in well water even in remote areas.

#### 💧 Additional Tests

Circumstances specific to your well or property may require additional testing not described here. For instance, NHDES does not recommend routine testing for pesticides, herbicides or other synthetic organic compounds (SOCs), mainly because of the high cost. However, such testing might be a good idea if your water has elevated nitrite or nitrate concentrations and an agricultural source is suspected, or significant amounts of pesticide have been applied near your well.

These less-routine tests may not be performed at all laboratories.

## What will testing tell me?

The laboratory report you receive will show the level at which any of the tested substances were found in your water sample. The mere presence of a contaminant in your well water does not necessarily mean that there is a problem. However, when levels exceed state or federal health standards or recommended action levels, there may be a problem and you should take steps to fix it. There are a number of appropriate treatment methods that can remove contaminants from water. NHDES' *Be Well Informed* web tool (see <http://xml2.des.state.nh.us/DWITool/>) allows a user to enter water quality results from a lab report into the application, evaluates the contaminants and recommends appropriate treatment options when necessary. You can print a report from *Be Well Informed* that summarizes recommended treatment options along with potential impacts to your health and/or home. NHDES also has fact sheets on its website covering all common water quality problems and their solutions. Before making any final treatment decisions, be sure to consult with a qualified treatment professional.

## When should I test my well water?

NHDES recommends that prospective homebuyers test the water in a home with a private well before purchase.

Water quality in wells is generally stable, and if a change is going to occur, it occurs slowly. Thus the time between water quality tests, once you've purchased the home, can generally be several years if a well is properly constructed and located in a safe area. Bacteria and nitrate are exceptions; you should test for them every year.

The following conditions would call for more frequent testing:

- Heavily developed areas with land uses that handle hazardous chemicals.
- Recent well construction activities or repairs. NHDES recommends testing for bacteria after any well repair or pump or plumbing modification, but only after substantial flushing of the pipes.
- Elevated contaminant concentrations found in earlier testing.
- Noticeable variations in quality such as a change in taste, smell, or appearance after a heavy rain or an unexplained change in a previously trouble-free well, such as a strange taste or cloudy appearance.

When taking any sample, NHDES recommends that it be taken after a heavy rainstorm. These events tend to highlight conditions of improper well construction or poor soil filtration.

## Learn More

For information about private well testing, treatment or accredited laboratories in New Hampshire, visit the NHDES website: [www.des.nh.gov](http://www.des.nh.gov)

Go to the A to Z List and select "Private Well Testing"

NHDES recommends having the following tests done every 3 to 5 years, except for bacteria and nitrate, which are recommended annually.

### Standard Analysis

Arsenic	Lead
Bacteria	Manganese
Chloride	Nitrate/Nitrite
Copper	pH
Fluoride	Sodium
Hardness	Uranium*
Iron	

### Radiological Analysis

Analytical Gross Alpha
Radon
Uranium*

### Volatile Organic Compounds (VOCs)

\*Please note: Uranium is part of both the standard and radiological analysis for the State of NH Lab.

