

# The State of New Hampshire

### **Department of Environmental Services**



#### Robert R. Scott, Commissioner

January 23, 2019

#### **NHDES Well Water Testing Brochure for Residents**

Approximately 20% of drinking water wells in New Hampshire are estimated to have unhealthy levels of arsenic which is present within the geologic formations underlying much of New Hampshire. Long-term consumption of well water having high levels of arsenic is associated with higher rates of bladder cancer and non-melanoma skin cancers, as well as a variety of other diseases. According to the American Cancer Society, "drinking water is an important and potentially controllable source of arsenic exposure."

Nearly half (46%) of New Hampshire residents rely on a private well on their property as their primary source of drinking water. Survey data suggest that many private well users in New Hampshire are not regularly testing their well water. According to the 2014 Behavioral Risk Factor System (BRFSS) survey conducted by New Hampshire's Department of Health and Human Services (NHDHHS), only 44% of private well users indicated they had tested their well water within the last three years. Regular private well water testing and treatment is typically not required in New Hampshire. Failure to test and properly treat well water may lead to exposure to unhealthy levels of arsenic, radon, bacteria as well as other contaminants.

NHDES is providing the included brochures to distribute within your community to remind private well users that it is important to test their well water. The brochure provides a series of pointers to information that can help private well users test their well water at an accredited lab and then effectively treat common contaminants, when necessary. NHDES' Be Well Informed tool is an interactive, online guide that allows users to enter water quality results from a lab report and, using those results, the tool provides specific water treatment recommendations and potential health risks.

We hope these brochures will be placed in visible locations for residents to take, perhaps at the municipal clerk's office, library and/or other "high-traffic" area. In addition, we hope your municipality can add a link on its webpage that brings residents to NHDES' Private Well Testing Program Page. To find the Private Well Testing Program page, go to the main NHDES webpage, www.des.nh.gov, scroll down and on the right-hand side, in the "How Do I" box, click on "get my water tested?" to bring you to the Private Well Testing page. Raising awareness about exposure to arsenic and other contaminants present in groundwater is an important public health issue in New Hampshire.

If you have questions or wish to discuss how your community can continue to work to reduce exposure to common groundwater contaminants through private well water testing and treatment, please contact Pierce Rigrod at (603) 271-0688 or pierce.rigrod@des.nh.gov.



### **TEST YOUR WELL WATER**

Unhealthy levels of contaminants are common in many private wells in New Hampshire. Some of these contaminants have been linked to cancer and other diseases. Most have no taste, smell or color. It is important to periodically test well water to ensure it is safe to drink.

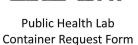
## **MORE INFORMATION**

For information about testing your well water, treatment options or accredited laboratories in New Hampshire, visit the NHDES website.

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

NHDES Drinking Water and Groundwater Bureau 29 Hazen Drive; PO Box 95 Concord, NH 03302-0095 (603) 271-2513 dwgbinfo@des.nh.gov







**NHDES-Accredited Labs** 

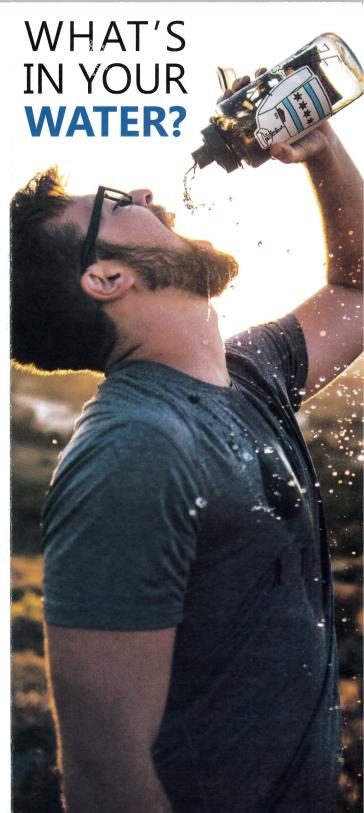
This brochure was produced in partnership:



www.des.nh.gov



www.dhhs.nh.gov/dphs/lab/index.htm



### HOW TO TEST

- 1. Order a kit from an accredited laboratory to sample your water. The New Hampshire Public Health Lab has an online container request form, as do some other labs.
- **2. Follow the instructions** included in the kit to sample your well water and send back the water sample(s) immediately to the lab.
- **3. Review the report from the lab.** Any contaminants that may affect your health or your home appliances will be highlighted.

### HOW TO TREAT

If the lab report indicates there is a contaminant in your well water in amounts greater than state or federal health standards or recommended action levels, you should take steps to fix it.

Using NHDES' **Be Well Informed** web tool, you can enter results from your lab report and get recommendations for appropriate treatment options, if needed.

NHDES also has **fact sheets** on its website covering all common water quality problems and their solutions. Before making a decision, consult a water treatment professional.

## WHAT TO **TEST** FOR

#### STANDARD ANALYSIS

This covers the most common contaminants. Some of these pose health concerns while others only affect taste and/or smell. Find water quality standards on the NHDES Drinking Water and Groundwater Bureau website.

| Arsenic         | Bacteria | Chloride  |
|-----------------|----------|-----------|
| Copper          | Fluoride | Hardness  |
| Iron            | Lead     | Manganese |
| Nitrate/Nitrite | рН       | Sodium    |
|                 | Uranium* |           |

<sup>\*</sup>Uranium is part of both the standard and radiological analysis packages at the State of NH Lab.

#### **VOCs**

MtBE, benzene, and industrial solvents are the most common volatile organic compounds (VOCs). MtBE and benzene are found in gasoline, and MtBE has been detected even in remote areas.

#### RADIOLOGICAL ANALYSIS

Rocks in New Hampshire contain naturally-occuring radioactive elements that dissolve easily in water. Radiological analysis includes tests for uranium, analytical gross alpha and radon.

A radon air test is also advisable since the greatest exposure risk is through inhaling air with elevated concentrations of radon gas. Radon test kits are available from the **National Radon Program Services** and at home improvement stores.

#### **ADDITIONAL TESTS**

Tests for pesticides, herbicides or other synthetic organic compounds (SOCs) may be a good idea if your water has elevated nitrite or nitrate concentrations, or if significant amounts of pesticide have been applied near your well.

Learn about per- and polyfluoroalkyl substances (PFASs), which have recently been found in New Hampshire's water, on the **NH PFAS Investigation** webpage.

### WHEN TO TEST

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

Water quality in properly located and constructed wells is generally stable, and if a change is going to occur, it occurs slowly. Thus, *NHDES recommends standard and radiological analysis testing every three to five years*. 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 thorough flushing of the pipes.
- High levels of contaminants found in earlier testing.
- Noticeable changes in the water, such as a change in taste, smell or appearance after a heavy rain, or an unexplained change in a previously trouble-free well.

