

Private Well Users:

Know Your Water

Lyndeborough, NH

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OVERVIEW

Private Wells in New Hampshire

Common Contaminants

Testing

Treatment

Community Engagement

Section 1:

Private wells in New Hampshire



Private Wells: The Rundown

- ❑ Private wells serve as a primary source of drinking water for approximately 46% of New Hampshire's population, ~ 520,000 people.
- ❑ There is no uniform testing or treatment requirement(s) for private wells in New Hampshire.
- ❑ New Hampshire is a state with abundant groundwater, generally free from harmful anthropogenic contaminants



National Drinking Water Standards and Private Wells

- ❑ Environmental Protection Agency (EPA) regulates public water systems;
- ❑ EPA does not have the authority to regulate private drinking water wells.
- ❑ Approximately 15 percent of Americans rely on their own private drinking water supplies, and these supplies are not subject to EPA standards, although some state and local governments do set rules to protect users of these wells.

Municipalities That Require Private Well Testing

Bow, Derry, Pelham, Salem, Windham, Chester

- ✓ Require testing to receive a CO (Bow)
- ✓ Cite RSA 147:1 Public Health Authority
- ✓ Refer to DES's Standard Analysis (tests)
- ✓ Most require water quality testing (w/o treatment) vs. treatment

Defining “potable” could change that



Section 2

Common Contaminants



Contaminants
can be both
naturally occurring
and/or
human caused

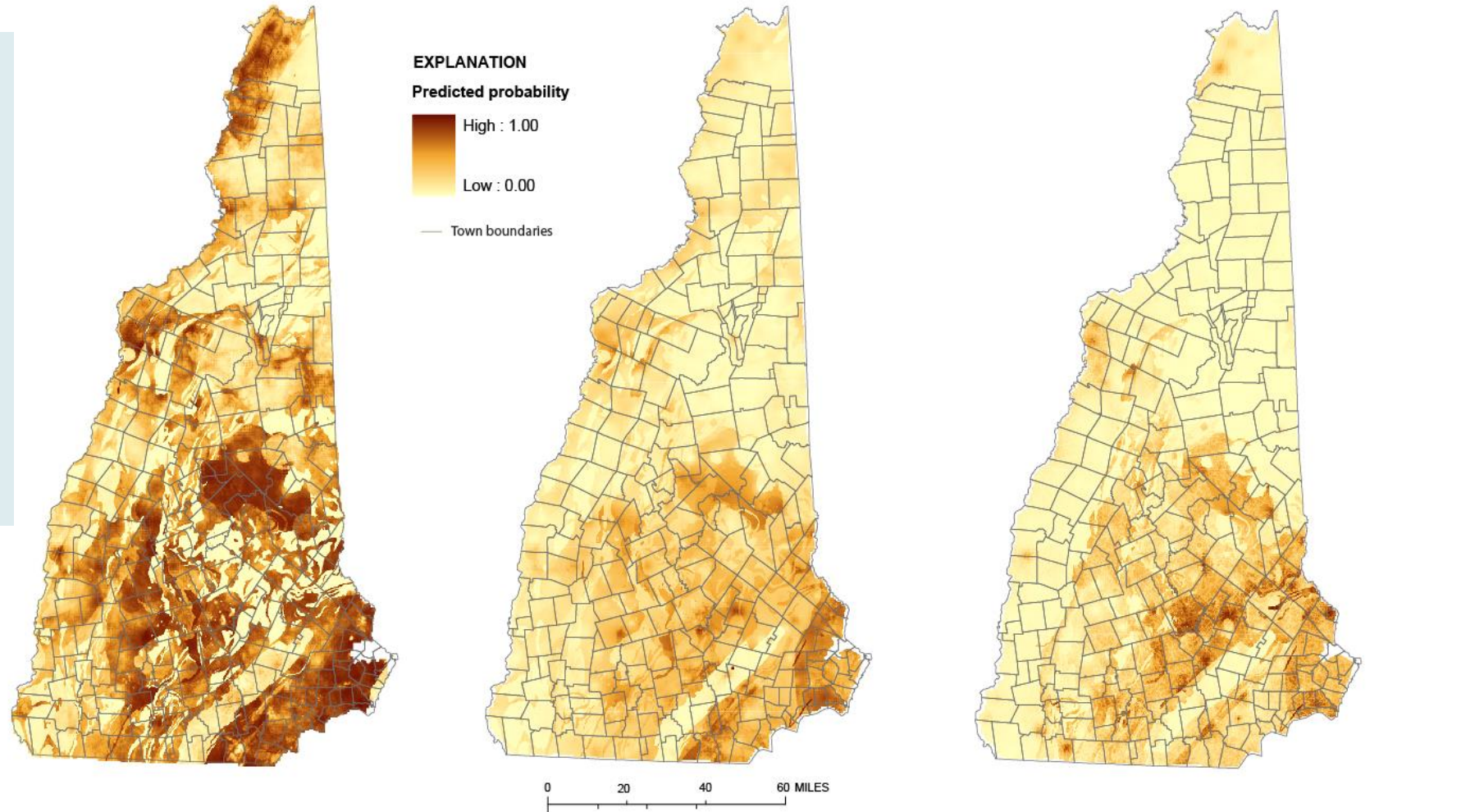
Probability of arsenic in New Hampshire

A. Arsenic ≥ 1 $\mu\text{g/L}$ model

B. Arsenic ≥ 5 $\mu\text{g/L}$ model

C. Arsenic ≥ 10 $\mu\text{g/L}$ model

Arsenic is an example of a naturally occurring contaminant



Human-Caused Contaminants

Petroleum components – MtBE

- ~23% (1 in 4) of samples thus far with detectable levels

PFC compounds

Teflon[®], Post-It[®] and other adhesive paper, Cosmetics, Tyvek[®], Gore-Tex[®] or other synthetic and stain-resistant materials

- ~ 170 wells above health advisory thus far

Common Contaminants in New Hampshire Private Wells

PARAMETER		Percent of Private Well samples above Health Standard	
Arsenic	> 10 µg/L	20%	
Bacteria	Present	19%	
Lead (stagnant)*	>= 15 µg/L	70% detects	15% exceeding
Lead (flushed)*	>= 15 µg/L		2% exceeding
Nitrate	>= 10 mg/L	0.3%	
Radon**	> 2,000 pCi/L	55%	
Radon**	> 10,000 pCi/L	24%	
Manganese	> 0.05 mg/L	40%	

- Lead Stagnant = first flush sample sitting overnight in home plumbing.
- Lead Flushed = samples after flushing tap for a few minutes.

Health Impacts - Arsenic

Low dose, chronic, long term exposure increases risk of:

- Cancers (bladder, skin, kidney, liver, prostate and lung)
- Vascular and cardiovascular disease
- Reproductive and developmental effects
- Cognitive and neurological effects
- Diabetes and other metabolic disorders
- Neuropathy

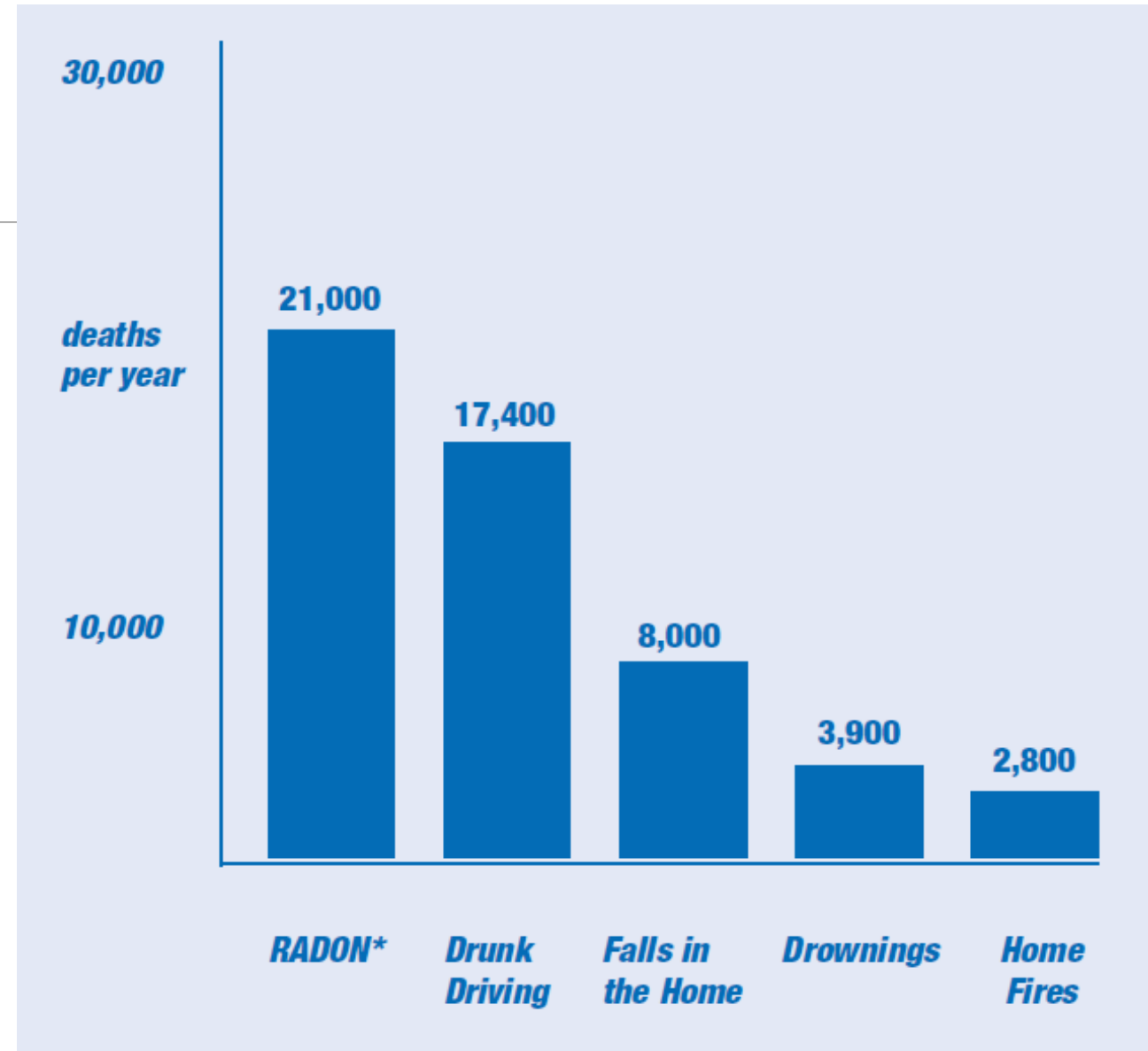
Hughes et al. (2011). "Arsenic Exposure and Toxicology: A Historical Perspective" *Toxicological Sci* 123(2): 305–332.

Health Impacts - Radon

Radon (air)

- 21,000 lung ca deaths/yr in U.S.
- 100 deaths/yr in NH!!

Most of the risk from radon in water comes from breathing radon gas that is released into the air when water is used in the home.



Health Effects for Common Well Water Contaminants

***E.coli* Bacteria / Fecal Contamination**

Diarrhea, vomiting, death! Vulnerable population most at risk.

Nitrate

Infants under six months “blue-baby syndrome” (methemoglobinemia), coma and death.

Lead

Infants and Children most vulnerable, irreversible, developmental, behavioral health effects



Section 3

Testing



Principle Laboratory for the State of New Hampshire

Support Department of Environmental Services in administering and enforcing federal Safe Drinking Water Act

- Maintain accreditation, capability and capacity to analyze all primary drinking water parameters in the event of an emergency or enforcement action.



What to Test

NH DES Standard Analysis

Test Every 3-5 Years**

14 in the “Standard Analysis” package and three radiological parameters

Additional Tests for Private Wells

Volatile Organic Chemical (VOCs)

- Gasoline Related Compounds (MTBE)
- Chlorinated Solvents

Semi-Volatile Organics

- Petroleum Hydrocarbons
- Pesticides/Herbicides

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.

When to Test

Follow the NH DES Well Testing Schedule

NHDES Recommendations for Private Well Testing	
Standard Analysis	Testing Frequency
Arsenic Bacteria Chloride Copper Fluoride Hardness Iron Lead Manganese Nitrate/Nitrite pH Sodium Uranium	Every 3 to 5 years (except for bacteria and nitrate, which are recommended yearly)
Radiological Analysis Radon Uranium Analytical Gross Alpha	Every 3 to 5 years
Volatile Organic Compounds (VOCs)² VOCs	Every 3 to 5 years

Other times to test your water:

- If the well flooded
- If you notice a change in the color, taste or smell of your well water



Where to test

Accredited Testing Laboratories



Table 1
Accredited Labs Providing Well Water Quality Testing Services
in New Hampshire and Neighboring States¹

LABORATORY NAME	TELEPHONE	ADDRESS	TOWN	STATE	WEBSITE
ABSOLUTE RESOURCE ASSOCIATES LLC	(603) 436-2001	124 HERITAGE AVE	PORTSMOUTH	NH	WWW.ABSOLUTERESOURCEASSOCIATES.COM
AQUARIAN ANALYTICAL INC	(603) 783-9097	153 WEST RD	CANTERBURY	NH	WWW.AQUARIANLABS.COM
CHEMSERVE INC	(603) 673-5440	317 ELM ST	MILFORD	NH	WWW.CHEMSERVELAB.COM
ENDYNE INC	(603) 678-4891	56 ETNA ROAD	LEBANON	NH	WWW.ENDYNELABS.COM
ENDYNE INC	(802) 879-4333	160 JAMES BROWN DR	WILLISTON	VT	WWW.ENDYNELABS.COM
GRANITE STATE ANALYTICAL SERVICES LLC	(603) 432-3044	22 MANCHESTER RD, UNIT 2	DERRY	NH	WWW.GRANITESTATEANALYTICAL.COM
NELSON ANALYTICAL LLC	(603) 622-0200	490 E INDUSTRIAL PARK DRIVE	MANCHESTER	NH	WWW.NELSONANALYTICAL.COM
NEW ENGLAND RADON LTD	(603) 893-4260	11 A INDUSTRIAL WAY UNIT 3	SALEM	NH	WWW.NEWENGLANDRADON.COM
NH DHHS PUBLIC HEALTH LABORATORIES	(603) 271-3445	29 HAZEN DR	CONCORD	NH	http://des.nh.gov/organization/commissioner/lsu/index.htm
SEACOAST ANALYTICAL SERVICES	(603) 868-1457	72 PINKHAM RD	LEE	NH	SEACOASTANALYTICAL.COM
NELSON ANALYTICAL LLC	(207) 467-3478	120 YORK STREET	KENNEBUNK	ME	WWW.NELSONANALYTICAL.COM
EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL	(717) 656-2300	2425 NEW HOLLAND PIKE	LANCASTER	PA	WWW.LANCASTERLABSENV.COM
NATIONAL TESTING LABORATORIES	(800) 458-3330	556 SOUTH MANSFIELD ST	YPSILANTI	MI	WWW.NTLABS.COM

How to Test:

Sample Water Test Submittal Form



State of New Hampshire
Department of Health and Human Services
Public Health Laboratories
29 Hazen Drive
Concord, NH 03301
Tel: (603) 271-3445 Fax: (603) 271-2997
Business Hours: Monday-Friday 8 am - 4 pm

Water Test Submittal Form - Homeowner

The Lab cannot accept Bacteria samples after 12:00pm on Fridays or the day before a holiday

Lab Use Only	
Sample Temp _____	CK # _____
Cooler Yes / No _____	Rec'd by _____
Ice/Cold Pack Yes / No _____	Date _____
Rec Codes _____	Time _____

Workorder ID: _____

Report to:
(Please print clearly)

Name: _____

Address: _____

City: _____

State: _____ Zip: _____

Phone: (____) _____

Sample Collection: (check one)

Date: ____/____/____ Time: ____:____ AM PM

Collected by: _____

Sample source: Well Public water system
 Surface water Other _____

Source Location: (Check if same as Report to)

Well information:

Dug Drilled Spring Pounded Point Unknown Other _____

Has the well been disinfected recently? Yes / No _____ If Yes, check for chlorine in lab Date _____
Chlorine present? Yes / No Init _____

Is the well being treated for any of the following? Yes / No _____
(If yes, please check all that apply)

Radon Hardness Iron/Manganese Arsenic Other _____

Sample taken Before After treatment

Please Check Test Choice		Attention: Important Shipping Information for Bacteria Samples	
* These tests are included in the Standard			
<input type="checkbox"/> Standard		\$	85
<input type="checkbox"/> Radionuclides includes Alpha/Radon			80
<input type="checkbox"/> Radon			20
<input type="checkbox"/> Volatile organic chemicals			120
<input type="checkbox"/> Drinking Water Bacteria *			15
<input type="checkbox"/> Basic Analysis *			30
<input type="checkbox"/> E. coli/Swim Surface Water			20
<input type="checkbox"/> Arsenic *			15
<input type="checkbox"/> Fluoride *			12
<input type="checkbox"/> Other			_____
		Total enclosed \$	_____

Be sure to ask when your package will arrive at the Lab.
Your sample **must** be tested within
30 hours of collection.

Additional comments

Make check payable to: Treasurer State of New Hampshire

Summary Data for Private Wells in Lyndeborough 2006-2016

	Arsenic mg/L	Radon pCi/L	Radon pCi/L	Total Coliform P-A/100mL	E. coli P-A/ 100mL	Manganese mg/L	Iron mg/L	Lead Stagnant mg/L	Lead Flushed mg/L
Standard	0.010	2000 - 10000	>10000	Absent	Absent	0.05	0.3	0.015	0.015
Total Samples	11	3	13	18	18	10	10	7	10
Detects	7	3	0	2	1	5	4	6	3
Above Standard	5	3	0	2	1	3	2	2	2
Above Standard %	45%	100%	0%	11%	6%	30%	20%	29%	20%

Section 4:

Treatment



Dartmouth Private Well Survey (2014)

1 in 4 people who tested their well did not understand the results of their lab report.

1 in 3 did not know what actions to take given their water quality test results.

Home Water Treatment – Point of Use (POU)

Treats water at a single tap, examples:

POU carbon filter ->



<- POU Arsenic



Contaminants treated at Point of Use:

- Arsenic
- Uranium
- Fluoride
- Radium
- Chlorine

Home Water Treatment – Whole-House

Treats all the water entering the house and is installed in the basement.



Whole House treatment is necessary for:

- Radon
- Iron, Manganese
- Lead and Copper Corrosivity
- Odor - Sulfide
- Scaling- Hardness

Understanding Lead

MCL Goal is **ZERO**

Flush your tap *every morning* before using water for consumption

Test *stagnant* lead and copper to know if your water is corrosive to your home plumbing

Use **alternate water** for infants and children if levels are above 5 ppb

LEAD POISONING

HEALTHY HOMES & LEAD POISONING PREVENTION PROGRAM

LEAD IN DRINKING WATER

SOURCES OF LEAD IN WATER

Lead is rarely found in water before it enters your home, but the plumbing in your home could be contributing lead to the water you drink. Lead is most likely to be found in your water first thing in the morning after the water sits in the pipes all night, or any length of time where it sits more than six hours.

TEST YOUR WATER

You can not see, smell, or taste lead in water

The only way to know you have lead in your water is to have it tested. To find out about testing, contact the NH State Lab at (603)-271-3445 or contact any certified private lab.

While you are waiting for your water test results...

There are simple steps you can take to avoid possible exposure to lead

- Flush the tap every morning by running cold water for one minute before using. This clears out water that has been sitting in the pipes overnight. Also flush the tap when you have been away from home.
- Use only cold water from the tap for drinking and cooking. If you need hot water, start with cold water from the tap and then heat it on the stove or microwave.

What does my water test result mean?

Non-Detect (ND) or less than 1 ppb (µg/L)

- No action needed

1 to 5 ppb (µg/L) or .001 to .005 ppm (mg/L)

- Flush the tap every morning by running cold water for one minute before using. This clears out water that has been sitting in the pipes overnight. Also flush the tap when you have been away from home.
- Use only cold water for drinking and cooking. If you need hot water for drinking or cooking, run cold water from the tap first, then heat it.
- Use bottled water for baby formula and food. If you must use tap water, make sure you only use cold water and flush the tap for a full minute first.

5 to 15 ppb (µg/L) or .005 to .015 ppm (mg/L)

Take steps listed above, AND

- Install a water filter that is certified to remove lead. There are pitcher and faucet filters that remove lead, but read the package carefully. It must say it is certified by NSF/ANSI under Standard 53 for lead removal.
- Test water for lead after you have taken all the steps above to see how effective these steps were in removing lead.

When you take your water sample

- Choose a tap you use for drinking water, such as the kitchen faucet.
- Fill the sample bottle first thing in the morning.

For babies and toddlers, use bottled water.

NHDES Be *Well* Informed Web Tool

Provides an interpretation of lab results in terms of water quality standards

Provides applicable treatment technologies to address contaminants of concern

Provide information on health effects

Considers multiple contaminants

The screenshot shows the top section of the web tool. On the left, a grey panel contains the text: "NH DES's Be *Well* Informed Guide", "PROTECT YOUR FAMILY'S HEALTH AND HOME", and a red button labeled "INFORMATION AND GUIDANCE FOR TREATING YOUR WELL WATER". To the right, there are two images: a red apple splashing in water and a young boy drinking from a glass.

The **Be *Well* Informed** Guide from NH DES is designed to help you understand your water test results and, if your well water has commonly found pollutants in it, provide information about health concerns and water treatment choices. New Hampshire is fortunate to have an abundance of clean groundwater, and nearly half of New Hampshire's residents (over 500,000 people) rely solely upon domestic wells (also called "private wells") as their primary source of drinking water. While many private wells provide safe drinking water, certain pollutants like arsenic, iron and manganese are sometimes present in groundwater at levels that can affect your health and home.

NH DES recommends private well owners test their well water every three to five years for pollutants commonly found in New Hampshire's groundwater. This group of commonly found pollutants is listed in NH DES's Private Well Brochure and is referred to as the "**Standard Analysis**." The Be Well Informed Guide evaluates the pollutants that are part of the Standard Analysis. NH DES recommends that you have your water tested at a **NH ELAP accredited laboratory**. When you have your water tested, your test results will be summarized in the form of a **lab report**.

With your water test results in hand, click the button below to enter your test results from your laboratory report. You will receive an evaluation of your well water quality and, if necessary, water treatment options.

Read This Disclaimer Before Proceeding

Information provided on this website is for informational purposes only and should not be substituted for direct consultation with a qualified water treatment professional. Other conditions or factors related to your well or home not considered by this online guide may determine the most appropriate water treatment option.


Enter Your Well Water Test Results


 [DES Private Well Brochure](#)

 [Accredited Labs in NH](#)

 [NH DES Private Well Testing Program](#)

Questions or Comments

 (603) 271-2513

 dwgbinfo@des.nh.gov

Be *Well* Informed user entry form is designed around the “standard analysis” recommended by NHDES

Please Read Before You Continue

- Your lab report may show that a certain pollutant was "Not Detected" in your water. This may be indicated in your report by a "ND" (Not Detected), "BD" (Below Detection), "BDL" (Below Detection Limit) or a less than symbol (" $<$ ") next to the result. In these cases, enter a "0" for that parameter.
- If your lab report doesn't show a test result for a certain pollutant, do not enter a zero; leave the box blank.
- Only enter numbers (not letters) for your test results unless otherwise noted. Do not add commas.

Invalid Entry – Please try again NH Town or City * Anonymous **Please Make A Selection**

Routine Water Analysis

	Units		Units
Arsenic (As)	.009 mg/L	Lead (Pb)	.016 mg/L
Chloride (Cl)	251 mg/L	Lead, Stagnant (Pb)	mg/L
Copper (Cu)	mg/L	Manganese (Mn)	mg/L
Copper, Stagnant (Cu)	mg/L	Nitrate-N	11 mg/L
Fluoride (F)	mg/L	Nitrite-N	1.1 mg/L
Hardness as CaCO3	mg/L	pH	units
Iron (Fe)	mg/L	Sodium (Na)	mg/L

Bacteria

	Units
Total Coliform	CFU/100 mL
or choose	<input type="radio"/> Present <input type="radio"/> Absent
E. coli	CFU/100 mL
or choose	<input type="radio"/> Present <input type="radio"/> Absent

Radionuclides

	Units
Radon (Rn)	pCi/L
Uranium (U)	µg/L
Gross Alpha	pCi/L

Submit Reset

Printable Web App Report: Part 1: “Results Summary”

[Click Here To Start Over](#)



Results Summary

✔ Value entered meets the Drinking Water Limit.

⚠ Value entered is close to the Drinking Water Limit.

✘ Value entered exceeds the Drinking Water Limit.

Routine Analysis	Water Test Value Entered	Drinking Water Contaminant Limit or Radon Advisory Level	About Your Well Water?
✘ Arsenic	.011 mg/L	0.01 mg/L	The value entered exceeds the drinking water standard
✔ Iron	.2 mg/L	0.3 mg/L	The value entered meets the drinking water guideline
✘ Lead Stagnant	.15 mg/L	0.015 mg/L	The value entered exceeds the drinking water standard
✘ Manganese	400 mg/L	0.05 mg/L	The value entered exceeds the drinking water guideline
✘ Nitrite-N	2 mg/L	1 mg/L	The value entered exceeds the drinking water standard. YOUR WATER IS NOT SAFE FOR BABIES UNDER SIX MONTHS OLD TO CONSUME.

Part 2: Treatment “Train”

Recommended Water Treatment To Remove Arsenic, Lead Stagnant, Manganese

The following recommended water treatment is based on the water quality information you entered. [Details concerning water treatment are below.](#)

Treatment Order

Step 1



Whole House Oxidizing
Filter System

OR

Whole House Cation
Exchange Water
Softener

Step 2



Whole House Acid
Neutralizer System

Step 3



Point-of-Use (POU)
Arsenic Adsorption
Media Filter System

OR

Point-of-Use (POU)
Reverse Osmosis (RO)
System

Part 3: Interpretation, Health, Treatment

Results Detail

Value entered meets the Drinking Water Limit.
 Value entered exceeds the Drinking Water Limit.
 Value entered is close to the Drinking Water Limit.
 A Value was Not Entered

Routine Analysis	Water Test Value Entered	Drinking Water Contaminant Limit or Radon Advisory Level	About Your Well Water?
Arsenic	.011 mg/L	0.01 mg/L	The value entered exceeds the drinking water standard

Interpretation of Results:

Does my well water meet the drinking water standard for arsenic? No, your water does not meet federal and state drinking water standards as it contains more than 0.010 mg/L of arsenic.

Treatment Options:

How can I reduce the level of arsenic in my water? In addition to arsenic, your water contains more than 0.1 mg/L of iron and manganese, which must be considered in your water treatment system. Install one of the following water treatment systems to reduce the level of water:

1. An NSF/ANSI Standard 42 certified whole house oxidizing filter system that uses an oxidizing agent to reduce the level of iron and manganese. This type of system will also reduce the level of arsenic in your water, though by how much depends on the levels of iron, pH, and arsenic.

Health Concerns:

Can consuming water containing arsenic affect my health? Consuming water containing more than 0.010 mg/L of arsenic is associated with an increased risk of cancer of the skin, bladder, lungs, kidneys, nasal passages, liver, or prostate as well as diseases of the nerves, lungs, heart, and immune and endocrine (hormonal) systems. Your individual health risk depends on the amount of arsenic in your water, how much of the water you drink each day, and the number of years you drink the water. To reduce your exposure to arsenic in your well water, treat the water that you use for drinking and cooking to a level less than 0.010 mg/L. You can continue to use your water for washing food and dishes, brushing your teeth, bathing, showering, and for other uses.

Be *Well* Informed Treatment Recommendations

- Recommends appropriate treatment technologies, not products.
- Addresses treatment for common contaminants (Standard Analysis)
- Considers one or multiple contaminants at varying concentrations, and well owner feedback (e.g., staining, taste)
- Yields printable PDF reports
- Provides links and offers phone support from DES

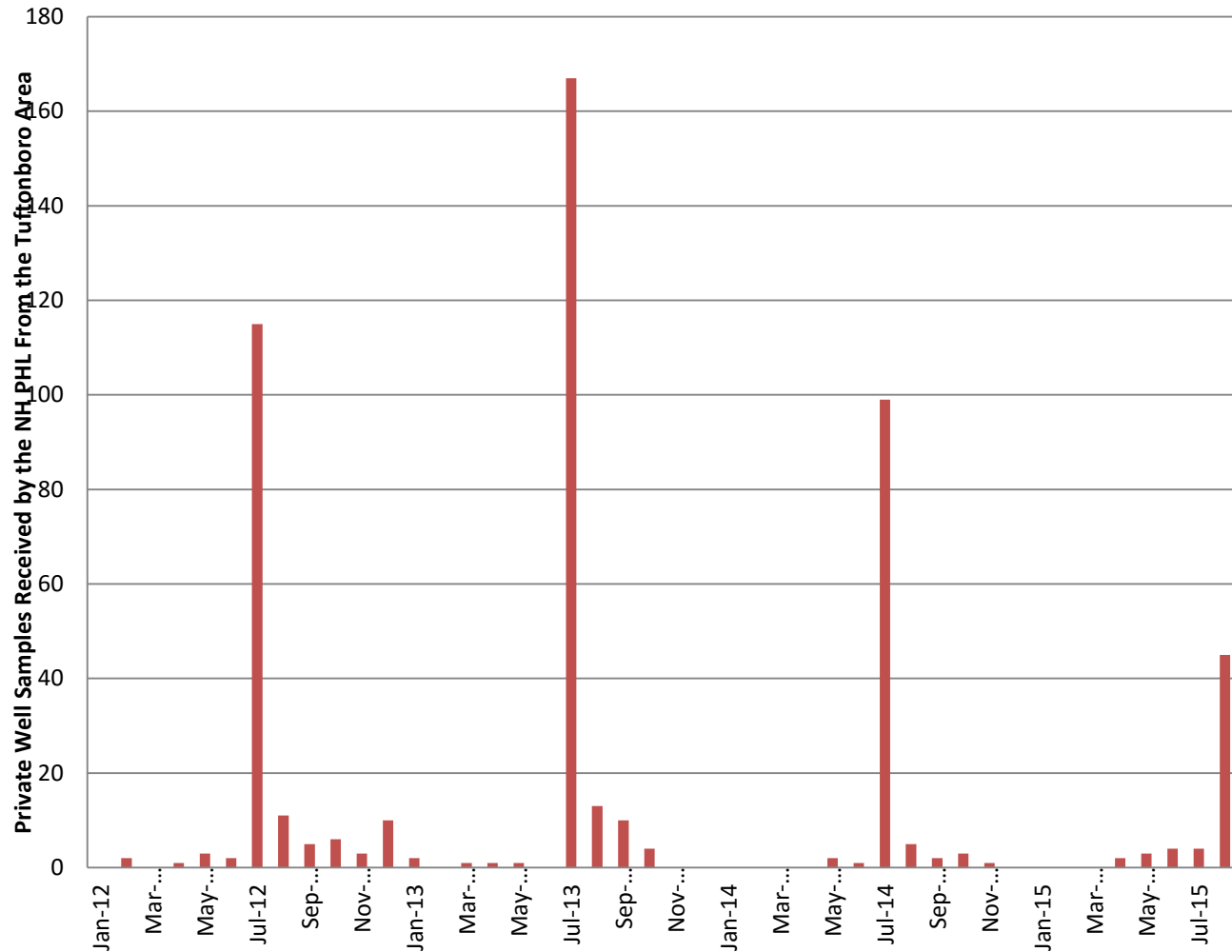
Homeowners may find the BWI link on their lab reports or on the website of their accredited lab, or search for “[NHDES Be Well Informed](#)”

Section 5:

Engaging Your Community



Impact of Community Outreach



A 2014/2015 NH DES/Dartmouth grant showed town testing events were effective at **increasing testing** when preceded by town communications. Testing events held in isolation were ineffective at increasing testing.



Conservation Commission distributed 172 test kits to the public

Community Toolkit



Well Water Community Action Toolkit

Congratulations on deciding to address private well water safety in your community. This toolkit was designed to help communities increase private well water testing and treatment. In this toolkit, you will find:

- Background information on private wells in New Hampshire
- A step-by-step guide for planning community activities
- Useful resources
- Communication materials
- Project planning worksheets

This toolkit may be used progressively from start to finish or you may choose to jump to the most relevant section that meets your community's needs. Either way the guidance and information provided here will help you work with your community partners and, over time, will create lasting community change.

Toolkit Table of Contents

- Introduction
- Where should you start?
- Creating a plan that works for you and your community
 - Assessment
 - Capacity Building
 - Planning
 - Implementation
 - Monitoring
- Additional Resources and Local Experts
- Appendix A -- Interventions and Communication Materials
- Appendix B -- What works in NH
- Appendix C -- Planning Worksheets

Community Toolkit

Additional Resources

Additional Resources and Local Experts

WEB LINKS

- NHDES Private Well Testing Program
http://des.nh.gov/organization/divisions/water/dwgb/well_testing/index.htm
- Be Well Informed Water Treatment Tool
<http://sm12.des.state.nh.us/DWITool/>
- Environmental Protection Agency Ground Water
<http://water.epa.gov/type/groundwater/index.stm>
- Dartmouth Toxic Metals Superfund Research Program
<http://www.dartmouth.edu/~toxmehal/>

STATE PARTNERS

- Dartmouth Toxic Metals Superfund Research Program
(603) 850-1524
<http://www.dartmouth.edu/~toxmehal/>
- NH DHHS Public Health Laboratories
(603) 271-4661
<http://www.dhhs.nh.gov/dpha/lab/index.htm>
- NH Department of Environmental Services
(603) 271-2513
<http://des.nh.gov/organization/divisions/water/dwgb/index.htm>
- NH DHHS/DPHS Environmental Public Health Tracking Program
(603) 271-4988
<http://www.dhhs.state.nh.us/dpha/index.htm>

Appendix A

Type your own text here in Adobe Acrobat to advertise your event.

You can't see it. You can't smell it. You can't taste it.

IS THERE ARSENIC IN YOUR WELL WATER?

1 in 5 "homeowner" wells in New Hampshire contain unsafe levels of arsenic.

15 dollars is all it costs to test your well water for arsenic.

ATTENTION RESIDENTS WITH PRIVATE WELLS

Well Water Testing Event - Pick up a WELL WATER TEST KIT!

- ▶ Where: Enter your own location here.
- ▶ When: Enter your own date here.
- ▶ Time: Enter your own time here.

TEST YOUR WATER TODAY, AND THEN AGAIN EVERY 3 TO 5 YEARS.

I had no idea the water we were drinking and cooking with was unsafe. I have lived in my house for 10 years and didn't realize I had arsenic in my water that could affect my family's health. It looked, smelled and tasted fine. The fix was easy and not too expensive. I feel so much better knowing the water is safe to drink.

ATTENTION RESIDENTS WITH PRIVATE WELLS

Well Water Testing Event - Pick up a WELL WATER TEST KIT!

- ▶ Where: Enter your own location here.
- ▶ When: Enter your own date here.
- ▶ Time: Enter your own time here.

TEST YOUR WATER TODAY, AND THEN AGAIN EVERY 3 TO 5 YEARS.

Community Toolkit

Appendix B

WHAT WORKS IN NH?

A LOOK AT COMMUNITY EFFORTS IN BOW AS DESCRIBED BY A COMMUNITY MEMBER

How did your community get started addressing well water testing and water quality?
 In 2005, the Drinking Water Protection Committee was established by the Select Board to help develop source water protection plans for municipal facilities. The committee recognized the need to protect water quality and over time has added private well testing to the topics it addresses.

Who is involved with this effort in your town?

The Drinking Water Protection Committee - a group of volunteers, including those representing the school board, planning board, and conservation commission, as well as representatives from the department of public works, operator of the municipal well system. We have also had interested residents participate on individual projects without the commitment of being a member of the committee.

How long have you been working on it?

Although the committee was formed in 2005, the committee's attention to education about private well testing has occurred within the past 5 years.

Has your group or team identified any short or long-term goals?

While we have a plan that addresses protection of drinking water and groundwater through various means, we have not yet establish goals in the area of private well testing.

Please describe some of the activities you have implemented in your community:

We have been distributing well test kits at town events, such as town meeting, voting days, and school open houses. In addition, we have made well testing, drinking water quality and septic system maintenance information available on a display board. We have had great cooperation from our school district in helping publicize well testing events and allowing us to have a table at school open house events. These activities are in addition to other work we have done, such as developing a Well Head Protection Program Implementation Plan for Bow's new one-million gallon a day municipal water supply, developing criteria for identifying land for protection/purchase by the town for drinking water protection, and conducting a study in response to homeowner complaints about water quality affecting their well pumps and the possible involvement of road salt.



Assessment of Current or Past Efforts

Event/ Effort	Resources Used	Implementation Group	Target Audience	Timeframe	Measure	Lessons Learned
Example: Clean Water Day	<ul style="list-style-type: none"> Created posters and about importance of well water testing 	Pelham Middle and High School	Science classes	Each April 15 th , for the past 5 years	# of posters posted	Other community groups to take part?
Well Water Awareness Announcement	<ul style="list-style-type: none"> Newsletter Writer/ creator for announcement Editor for announcement 	Town Health Officer and town staff	New Homeowners	Every May	# of new homeowners receiving newsletter	While this happens in May because of Well Water Awareness day, we need to work on reaching new homeowners year round
<p>Gaps: Example - None of the current efforts reach summer residents, most current work happens online, so people who are less computer savvy are not being reached.</p>						
<p>Community Resources: Example - The library has a great resource room and lots of people use it; there is a local private water testing company; our local newspaper is always looking for human interest stories, our community has a number of DES employees with content expertise.</p>						

Important Steps to Remember:

1. Learn about private wells in NH
2. Understand well water contaminants
3. Test, based on the NHDES testing schedule
4. Treat as needed
5. Work with your community partners to help educate your neighbors
6. Reach out to the experts @ NHDES, NH DHHS and Dartmouth Toxic Metals!

Thank You!



NH DIVISION OF
Public Health Services

Improving health, preventing disease, reducing costs for all
Department of Health and Human Services



DARTMOUTH TOXIC METALS
SUPERFUND RESEARCH PROGRAM



Questions?

