Private Wells in New Hampshire *What kind do you have?*

40% of New Hampshire residents get their water from private wells. There are different types of wells and different reasons for having each.

Purpose: Private wells may be constructed based on the amount of water needed for the building. For example, an apartment building needs more water than a single family home, so a drilled well may be used. More water is available when wells are dug deeper (see diagram below).

Environment: What is beneath the soil can impact what type of well can be constructed. For example, dug wells can be used in sand, while drilled wells must have bedrock. Climate is also important. In dry areas, a deeper well can mean less impact by drought.

Safety: Well water can become contaminated, making it unsafe to drink. Contamination may be bacterial, such as from septic failure. It may also be caused by natural chemicals that can be found in the ground, such as arsenic and uranium. Surface pollution from runoff, fertilizers, pesticides, and landfill seepage can also cause well contamination.

Types of NH Private Wells	Well Type	Other Names	Depth (feet)	Risk of Contamination & Other Concerns	Dus Drive Driller
Drilled	Dug	Spring	10-30	Dug wells have the highest risk of contamination from bacteria and the highest risk of surface pollution. Drought may impact dug wells.	Sand or Glacial Till
	Driven	Point, Gravel, or Washed	30-50	Driven wells have a lower risk of contamination from bacteria, but are at moderate to high risk of surface pollution. Drought may impact driven wells.	Gravel Clay
	Drilled	Bedrock, Artesian, Cable-Tool, or Pounded	100-400	Drilled wells have the lowest risk of contamination from bacteria, but the highest risk of natural chemical contaminants, such as arsenic and uranium.	Bedrock Aquifer

How do I know if my private well water is safe?

You can take a water sample from your tap and send it to a lab for testing. The test you choose depends on the contaminants you want to look for. It may also depend on the type of well you have and related risks. For example, you may not be concerned about radon in a dug well, but you may want to know about bacterial runoff. Bacterial testing should be done every year, while chemical testing should be done every few years, depending on the concern.

The NH Department of Environmental Services provides a list of companies that offer water testing: http://des.nh.aov/organization/divisions/water/dwab/nhelap/documents/labs-private-wells.pdf Sources:

- Drinking Water/Ground Water Fact Sheets. NH Department of Environmental Services, 2014.
- "Private Drinking Water Wells." Environmental Protection Agency, 16 Dec. 2015.
- "Private Ground Water Wells." Drinking Water. CDC, 16 Dec. 2014.
- <u>USGS Groundwater Information. United States</u> <u>Geological Survey, 4 Apr. 2016.</u>

NH Department of Health and Human Services, Division of Public Health Services, Public Health Laboratories http://www.dhhs.nh.gov/dphs/lab/index.htm