

Safe Well Water RI

Trusted, expert information

Tip Sheet 27



“Tip sheets helped us learn about our well water.”

Get Tip Sheets at www.rivelltesting.org:

- 14 Tip Sheets about harmful substances
- 10 Tip Sheets about treatment choices
- 3 Tip Sheets about other topics of concern

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Look for the NSF seal on water treatment devices.

NSF International is a non-profit group that sets performance standards for water treatment devices. Learn about NSF here: www.nsf.org

Understanding How Much Water Your Well Produces (Well Yield)

What is well ‘yield’?

“We’re thinking about buying a house in the country, but it has a well. How can we be sure of having enough water for a family of 5?”

“I’m worried we’re going to have another dry summer that could cause our well to go dry. How can I find out what to expect?”

These Rhode Islanders are asking about what experts call well yield. That is, how much water can continue to be pumped from the well for a set amount of time. Usually, yield is measured in gallons per minute.

Maximum safe yield is measured by pumping the well for an extended time and also measuring the groundwater level in the well. The amount pumped out of the well and the amount going into the well from the surrounding groundwater need to balance, or the well will “run dry.”

Usually the amount of groundwater that supplies a well remains steady. But, when too many wells tap into the same groundwater supply, a long drought occurs, or more water is used around the home than the well can supply, there can be problems.

Well professionals need to know the maximum safe yield of a well to make sure the well is deep enough and to install the well pump at the correct level.



What affects well yield?

Usually, well yield is steady over time. But, it can be affected by:

- Changes in the surrounding landscape
- Nearby development
- A worn or poorly working well pump

Sometimes a well yield goes down due to clogging in the well or a faulty pump. These can be fixed.

How will I know if a well will yield enough water over time?

Check the maximum safe yield. This may have been recorded in a well completion report, or well log, when the well was installed. Some Rhode Island communities require a yield test when a property is bought or sold, or before a building permit is issued.

Maximum safe yield can also be tested by a registered well driller or pump installer. Find a list of registered well experts here: www.rivelltesting.org.

How is well yield tested?

Any well can be tested. As noted above, always use a registered professional.

Before testing for maximum yield, certain information may be needed. This should be in your well completion report (well log), if you have one.

- **Well information:** Date the well was drilled, total depth of well, and (for an existing well) the yield when drilled
- **Pump information:** Date pump was installed, pump type, and model number
- **Measurements:** Depth to pump, depth to natural groundwater level, and maximum expected pumping rate

Your well professional will use an outdoor faucet with a hose attached for the test. They will make sure water is directed away from the well and, if possible, into an area that is usually wet, such as a nearby pond or stream.

We're here to help with your well water questions.

Talk with a water quality expert or find easy to read Tip Sheets.

- » University of Rhode Island Water Quality Program
Direct line to water expert: 401-874-5398
www.rivelltesting.org
- » Rhode Island Department of Health
Ask for the Private Well Program: 401-222-5960
www.health.ri.gov/drinkingwaterquality/for/privatewellowners