Test for:	How often should I test?
Coliform bacteria	Once a year, or when you suspect a failing septic system or agricultural contamination.
Nitrates	Once a year if well is close to fertilized fields or feedlots, or if you fertilize your lawn.
Pesticides	Every 5-10 years if near agricultural fields or pesticide storage areas.
VOCs (solvents, gasoline, or oil)	Every 5-10 years.

Source: Wisconsin Dept. of Natural Resources, Bureau of Drinking Water and Groundwater

- **Coliform bacteria:** The most common contaminant found in private wells. *E.Coli* is one strain of this bacteria that is found in the intestines and feces of warm-blooded animals. The presence of coliform in well water can also indicate the presence of other bacteria, viruses, and parasites that can cause illness in your household.
- **Nitrates:** Comes from fertilizers, septic systems and animal waste, among other sources. Excessive nitrates can be harmful to infants and fetuses.
- **Pesticides:** Wells located within 1/4 mile of farm fields have the potential to become contaminated with pesticides. Long-term consumption of pesticide-tainted drinking water can lead to cancer or other serious diseases.
- **VOCs:** Gasoline and fuel oil are examples of Volatile Organic Compounds that have the potential to seep into groundwater from leaking storage tanks and active or abandoned gas stations. Solvents, such as paint thinners and dry cleaning chemicals, are other VOCs that are common in our environment. Some of these materials can cause birth defects, reproductive problems or cancer.

Remember, as an owner of a private well you are solely responsible for maintaining your well and monitoring the quality of your water.

Who To Call

If you suspect having a dangerous contaminant in your well water, contact:

Charlottesville/Albemarle Health Department
Office of Environmental Health
(434) 972-6259
(www.vdh.state.va.us/)

For a complete up-to-date list of laboratories certified by the state to test drinking water, contact:

Division of Consolidated Laboratory Services
Certification Officer
(804) 648-4480 ext. 383
(http://www.dgs.state.va.us/LinkClick.aspx?fileticket=Gqw1XUApdjs%3d&tabid=508)

For questions and information regarding groundwater permitting at Albemarle County, contact:

County Engineer
(434) 296-5832
(www.albemarle.org)

Additional Resources:

U.S. Environmental Protection Agency;
(http://water.epa.gov/drink/info/well/index.cfm)

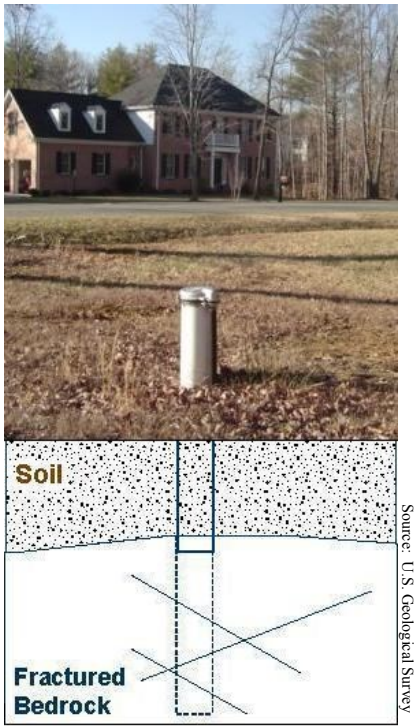
VA Cooperative Extension; *Home Water Quality information*
(http://pubs.ext.vt.edu/category/home-water-quality.html)

U.S. Geological Survey; *Groundwater brochure*
(http://pubs.usgs.gov/gip/gw_ruralhomeowner/)

Please keep this guide for future reference!

Groundwater Matters

A guide to help Albemarle County homeowners understand and protect their well water



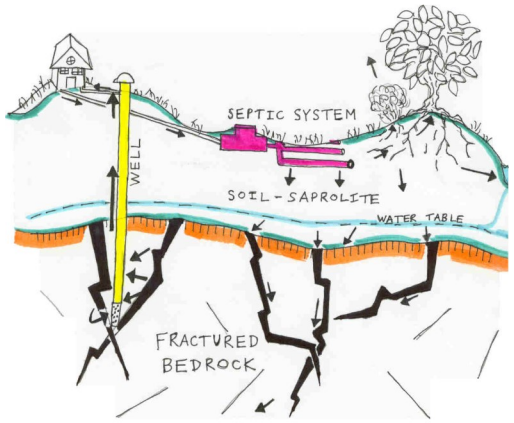
Source: U.S. Geological Survey

Approximately 45% of households in our county depend on private wells for a water supply. As a citizen who depends on a clean source of groundwater to meet your daily needs, you should be aware of some important steps you can take to maintain a safe water supply.

Well Water Basics

Groundwater that feeds your well is naturally filtered as it slowly seeps through the soil and into fractures within bedrock. Yet, groundwater still has the potential to become contaminated at the surface or underground and may not have the opportunity to be sufficiently filtered by the soil before it reaches your well.

Although dangerous contamination of well water is not common, drinking polluted water can lead to bacterial diseases or long-term effects such as nervous system disorders or cancer. Following are some tips for keeping your well clean and some clues to look out for that might indicate you have a tainted well.



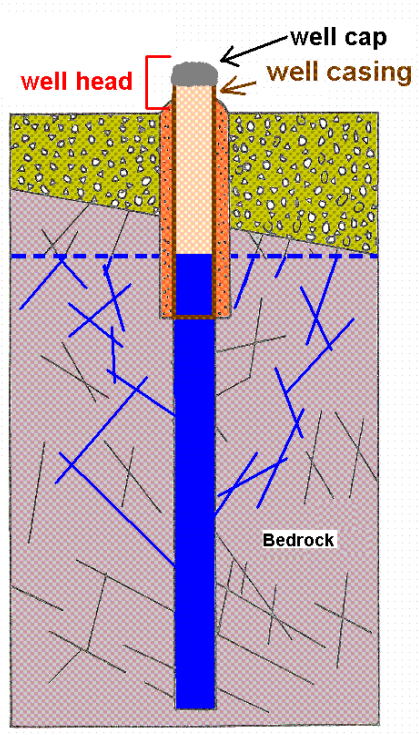
Wells tap into bedrock fractures filled with groundwater that has been naturally filtered by soil. But, failing septic systems, for example, can pollute that groundwater.

Keeping Your Well Water Clean

- Prevent water from pooling around the *well head* (see diagram at right).
- Make sure *well cap* isn't missing or cracked.
- Make sure *well casing* isn't cracked: seepage is common in concrete, brick, or clay tile wells.
- Don't use fertilizers, pesticides, & herbicides near well.
- Limit use of de-icers near well.
- Maintain fuel tanks to prevent leaks into soil; remove old abandoned tanks.
- Don't pour materials down the drain that *cannot* be digested by a septic system, including engine oil, gasoline, pesticides, paint, and solvents; dispose of these materials properly by dropping off at a waste recovery facility.
- Have septic system inspected and pumped out every 3-5 years to keep it working effectively.

Indicators of Potential Contamination

- Neighbors find contaminants in their water.
- A spill of chemicals into or near your well.
- Rotten egg smell, soggy soil, or excessive grass growth over septic field (possible failing septic system).
- Presence of livestock, manure pits, or feedlots near or uphill from your well.



Testing Your Well Water

If you notice any changes in taste, smell, color, or clarity in your water, it is possible your water well requires some maintenance. Contact a water well drilling company if you suspect that your well needs attention. It is also prudent to test your well water periodically for various pollutants and unpleasant impurities. Following is a list of tests you should have done on your well water annually or every few years and information on who to call for help. **Remember, as an owner of a private well you are solely responsible** for maintaining your well and monitoring the quality of your water.