Protect Your Home's Water

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Testing wells to safeguard your water

Consider testing your well for pesticides, organic chemicals, and heavy metals before you use it for the first time. Test private water supplies annually for nitrate and coliform bacteria to detect contamination problems early.

Test your well more frequently if you suspect a problem. Be aware of activities in your watershed that may affect the water quality of your well, especially if you live in an unsewered area.

Reasons to test your water

The chart below will help you spot problems. The last five problems listed are not the most immediate health concern. They can make your water taste bad, may indicate problems, and could affect your well long term.

Conditions or Nearby Activities:	Test for:
Recurring gastro-intestinal illness	Coliform bacteria
Household plumbing contains lead	pH, lead, copper
Radon in indoor air or region is radon rich	Radon
Corrosion of pipes, plumbing	Corrosion, pH, lead

Conditions or Nearby Activities:	Test for:
Nearby areas of intensive agriculture	Nitrate, pesticides, coliform bacteria
Coal or other mining operations nearby	Metals, pH, corrosion
Gas drilling operations nearby	Chloride, sodium, barium, strontium
Dump, junkyard, landfill, factory, gas station or dry-cleaning operation nearby	Volatile organic compounds, total dissolved solids, pH, sulfate, chloride, metals
Odor of gasoline or fuel oil, and near gas station or buried fuel tanks	Volatile organic compounds
Objectionable taste or smell	Hydrogen sulfide, corrosion, metals
Stained plumbing fixtures, laundry	Iron, copper, manganese
Salty taste and seawater, or a heavily salted roadway nearby	Chloride, total dissolved solids, sodium
Scaly residues, soaps don't lather	Hardness
Rapid wear of water treatment equipment	pH, corrosion

Conditions or Nearby Activities:	Test for:
Water softener needed to treat hardness	Manganese, iron
Water appears cloudy, frothy or colored	Color, detergents

Only use laboratories that are certified to do drinking water tests. To find a certified laboratory in your state, you can contact:

- A State Certification Officer to get a list of certified water testing labs in your state
- Your local health department, which may also test private well water for free If a contaminant is detected, the results should include the concentration found and whether this level exceeds a drinking water health standard.
- If a standard is exceeded in your sample, retest the water supply immediately and contact your public health department for assistance. Some problems can be handled quickly. For example, high bacteria concentrations can sometimes be controlled by disinfecting a well.

Filters or other on-site treatment processes may also remove some contaminants. Other problems may require a new source of water or a new, deeper well. If serious problems persist, you may need to rely on bottled water until a new water source can be obtained.

To detect contamination problems early, you should test private water supplies annually for at least:

- Nitrates
- Coliform bacteria
- Total dissolved solids
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Test more frequently if a problem was found in earlier tests.

Protect your water after a flood

- Stay away from the well pump while flooded to avoid electric shock.
- Do not drink or wash from the flooded well to avoid becoming sick.
- Get assistance from a well or pump contractor to clean and disinfect your well before turning on the pump.
- After the pump is turned back on, pump the well until the water runs clear to rid the well of flood water.
- If the water does not run clear, get advice from the county or state health department or extension service.

Prevent water well pollution

Protect your water supply by carefully managing activities near the water source. For households using a domestic well, this includes keeping contaminants away from sinkholes and the well itself. Keep hazardous chemicals out of septic systems.

- Periodically inspect exposed parts of the well for problems such as:
- Cracked, corroded or damaged well casing
- Broken or missing well cap
- Settling and cracking of surface seals
- Slope the area around the well to drain surface runoff away from the well.
- Install a well cap or sanitary seal to prevent unauthorized use of, or entry into, the well.
- Have the well tested once a year for coliform bacteria, nitrates, and other contaminants of concern.
- Keep accurate records of well maintenance, such as disinfection or sediment removal, that may require the use of chemicals in the well.
- Hire a certified well driller for any new well construction, modification, or abandonment and closure.
- Avoid mixing or using pesticides, fertilizers, herbicides, degreasers, fuels, and other pollutants near the well.
- Do not dispose of wastes in dry wells or in abandoned wells.
- Do not cut off the well casing below the land surface.

- Pump and inspect septic systems as often as recommended by your local health department.
- Never dispose of harsh chemicals, solvents, petroleum products, or pesticides in a septic system or dry well.