

# Taking Care of a Well

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*This is the first in a year-long series of articles in which the University of Maryland Extension will be providing information on how Maryland REALTORS® can protect and educate their clients as they buy and/or sell homes with private wells. This series will include information about what agents and buyers should look for when viewing a property, the importance of a good inspection, what to tell buyers about maintenance, and other helpful information to share with clients.*

**I**n 2014, citizens of Flint, Michigan showed the nation the importance of safe drinking water. Since then reports have shown high lead levels in communities across the nation. But lead in drinking water is not limited to municipal water. For homes with wells, the homeowners are responsible for protecting their family, yet few know what to do.

The Virginia's Household Water Quality Program provides water testing and education to homeowners with wells in Virginia. Based on their findings, 16% of their first-flush samples exceed the U.S. Environmental Protection Agency's limits for lead. In Flint, 19% of samples exceeded the lead limit. Erin Ling, Virginia's Program Coordinator says, "It's important to test your water for lead, particularly if you notice a metallic taste, signs of corrosion, or blue-green staining. Children under six are especially at risk of irreversible harm."

Many homeowners overlook the importance of water testing and well maintenance, even if doing so can prevent illness, disease, and developmental issues. In the case of lead, those first-flush samples contain water that has remained in the pipes overnight. Most samples show a significant drop in lead after the water runs for a few minutes — an easy solution that can greatly protect a family.

For home buyers, the water and well condition should be as important as a mold disclosure and the age of the

roof; together, they can protect the family from illness and paying the high costs for a new well to be dug. Some states require well inspections and/or dictate which contaminants to test for during property transfer,

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## When should a well be tested?

Homeowners with private wells can enjoy the luxury of not having to pay a water bill. But safe drinking water, even from a well, is not free. To protect their families from gastrointestinal distress, respiratory difficulty, neurological and developmental effects, and even cancer, homeowners should maintain their drinking water and any associated treatment systems. They should also routinely check their water quality by getting it tested at a state-certified lab.

Because many of the contaminants that affect health are invisible, tasteless, and odorless, many homeowners overlook the importance of well maintenance and water testing. They may not realize there is something wrong until the water looks or tastes funny, or simply stops running.

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This guide indicates which contaminants are commonly required by VA, FHA, and conventional lenders. It also includes contaminants that home buyers should consider including in their testing, some of which may affect health, others that affect the taste, color, and general aesthetics of the water, but do not pose any health risks.

## Contaminants To Test For

Contaminant	What is it?	Health Effects	Required by Lender
<b>Total coliform bacteria</b>	Bacteria that occurs naturally in the environment and is found on the soil and in vegetation; General indicator of water quality	May cause gastrointestinal distress	Conventional, VA, and FHA Loans
<b>E. coli</b>	Bacteria that originates from the digestive tracts of humans or animals; Presence indicates pathway for contaminated water to enter well	May cause gastrointestinal distress, severe illness, and possibly death	Conventional, VA, and FHA Loans
<b>Nitrate</b>	Compound found in fertilizer and manure	Shortness of breath; blue baby syndrome in infants under 6 months; Health risk to pregnant women.	Conventional, VA, and FHA Loans
<b>Turbidity</b>	Measure of cloudiness of water; General indicator of water quality	Not harmful to human health, but may be associated with microorganisms that can cause nausea, cramps, diarrhea, and associated headaches	Conventional, VA, and FHA Loans
<b>pH</b>	An indicator of the water's alkalinity or acidity	Not harmful to human health, but depending on the value, the pH can affect the taste and feel of the water, damage plumbing, and potentially leach dangerous metals from pipes and fittings	VA, and FHA Loans
<b>Iron and/or manganese</b>	Naturally occurring metals in groundwater	Not harmful to human health, but can affect the taste and color of the water, and cause staining	FHA Loans
<b>Nitrite</b>	Compound associated with nitrates	Shortness of breath; blue baby syndrome in infants; Health risk to pregnant women	FHA Loans
<b>Lead</b>	Metal that acidic groundwater can leach out of plumbing, pipe materials, or lead solder or brass fittings and components	Can cause irreversible damage to the brain, kidneys, nervous system, and blood cells; Irreversible developmental effects make children, babies, and fetuses most susceptible to lead poisoning	FHA Loans
<b>Hardness</b>	Measure of calcium and magnesium in water; derived from bedrock like limestone and dolostone.	Not harmful to health; Prevents soap from lathering and may leave deposits on pipes and hot water heaters	Not required
<b>Sulfates</b>	Naturally occurring compound in groundwater	High levels may cause diarrhea, causing dehydration that is especially detrimental to infants and young animals	Not required
<b>Total Dissolved Solids</b>	General indicator of water quality; Measures dissolved impurities	Not harmful to health; High levels may affect the water's taste	Not required



but no such law exists in Maryland. Instead, lenders usually require various tests before approving a loan. This requirement, however, is designed to protect the lender, should they end up repossessing the house. They are not specifically intended to protect the occupants of the home.

To best protect their health and investment, home buyers should request additional tests and only use state-certified labs. Karen Witcraft, a Senior Analyst at Fredericktowne Labs, says that many home buyers supplement the lender's tests. She also recommends that buyers identify activities occurring near the home that can contaminate drinking water, such as landfills, gas stations, agriculture, or natural geologic deposits.

Buyers should compare test results to the EPA's standards for municipal water supplies. In cases where

a contaminant level exceeds the EPA limit, the buyer should investigate treatment options, and whether treatment will address the problem in the long-term. For instance, treating bacteria requires chlorinating the well, but this solution only lasts for a limited time. If bacteria has entered through a crack in the well, then the source of the bacteria could continue contaminating the drinking water. These kinds of factors will affect the cost of the solution, and the REALTOR® will be an important advisor on negotiating these costs into the sale.

Home sellers who have responsibly cared for their wells and water should promote this by sharing all of their records. Like any other well-kept feature, a working well and clean water can only increase the home's value and ease buyer concerns. 🇲🇩