Is My Well Water Susceptible To Contamination?

Depth to Bedrock



Some wells are more susceptible to contamination than others. Old wells are more susceptible due to wear and tear; shallow wells are more susceptible than deeper wells. However geologic conditions have the biggest impact on whether your well is susceptible to contaminants.

Type of Soil & Surficial Deposits – Soil and surficial deposits are the most important factors in determining how susceptible an area is to groundwater contamination. They act as a giant filter for our groundwater and remove most of the harmful contaminants. The map to the left shows the depth from the ground surface to bedrock, essentially showing the thickness of the soil and surficial deposits (thicknesses range from 0 feet to over 600 feet!). We have the glaciers to thank for depositing our surficial deposits which consist of sand, gravel, clays and silts. The thicker these filters are the cleaner your drinking water typically is!

Type of Bedrock – Most of the County has limestone/dolomite as the first layer of bedrock. Fractured limestone and dolomite usually do not protect groundwater because they have open cracks that are interconnected. Shale and sandstone are two other types of bedrock found in the county; shale offers good protection because it is almost impermeable (does not permit the passage of water); sandstone and other rocks provide an intermediate level of protection.

Groundwater Contamination Sources

Groundwater contamination occurs in every county in Wisconsin from a variety of sources, some contaminants are even naturally occurring in our groundwater. However most contaminants are caused by human land uses and activities.

Below we see a home with a circle around it representing a one mile radius. Within just one mile from this home we can see a number of land uses that have the potential to contaminate groundwater.

With proper maintenance and safety precautions the land uses identified below may pose little to no threat to your drinking water. However, old landfills and fuel storage tanks can leak, old septic systems can fail, incorrect applications (timing and rates) of manure, pesticides and insecticides on agricultural fields can increase the infiltration of contaminants, and industrial chemical spills that are not properly cleaned can infiltrate into groundwater. Even if these activities aren't occurring around your well presently they may have been in the past and many different kinds of chemicals and pesticides can stay in the ground and groundwater for decades.



Prepared By: Washington Co., LWCD Subject to Errors and Omissions July, 2012

How do I know if my well water is safe to drink?

Well Test Results From The UWEX Project (439 samples)
- 23% of the samples tested positive for bacteria.
- 3% tested at levels considered to be unsafe for Nitrates.
- 5% of the samples had trace detections of Atrazine, a widely used herbicide, but note none of the results were over the federal health standard.

Answer: Annual Testing!

Pick Up A "Washington County Well Water Testing" Brochure Below For More Information We have partnered with the UWSP Water & Environmental Analysis Lab in order to offer a special "Homeowners Package" for just \$49.00 that tests for Coliform Bacteria, Nitrates, pH, Alkalinity, Total Hardness, Chloride, Conductivity, and the Corrosivity Index.