

Magnesium

Recommended Safety Standards

NC groundwater: N/A

EPA drinking water: N/A

❖ What is magnesium?

Magnesium occurs naturally with other elements (especially calcium) in well water, forming a white solid. Magnesium is indicative of water "hardness" which means the water has a high level of dissolved minerals.

❖ How does magnesium get into my well water?

Magnesium and calcium contact rocks and minerals, such as gypsum and limestone, and are therefore present in groundwater naturally. The erosion of natural mineral deposits is the main source of magnesium in well water.

❖ What are the health effects of magnesium?

Hard water is not a health risk. However, consequences of hard water include mineral buildup and decrease in function of detergents and soaps. If there is an extensive amount of buildup within the pipes, the pipes' diameter may be reduced. For further reading on the health effects of magnesium, please visit <http://www.water-research.net/index.php/water-treatment/tools/hard-water-hardness>.

❖ Who is most affected by magnesium?

Hard water is only really considered harmful for plumbing maintenance. However, individuals with circulatory/heart issues should consult a physician about adding softeners to the water to reduce water hardness. Softening adds sodium to the water which thereby removes magnesium and calcium and can affect individuals on a low-sodium diet.

❖ How do I know if my well water is contaminated with magnesium?

If your well was installed before July 2008, call your local environmental health office and ask for the well program or contact Clean Water for North Carolina if you are unsure of the appropriate point of contact for your area.

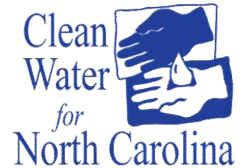
Still have questions or concerns?

Call Clean Water for North Carolina.

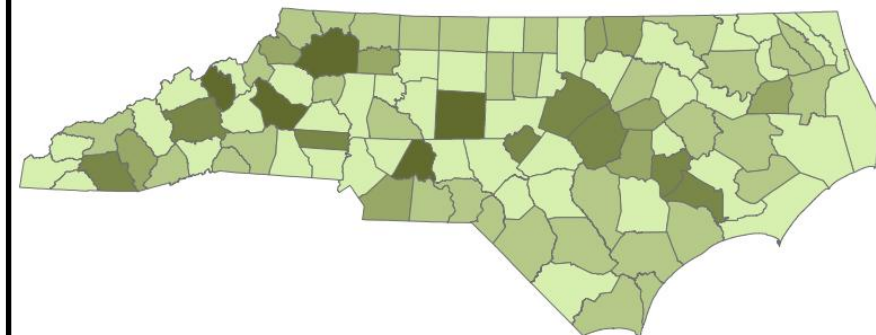
Asheville office: 1-800-929-4480, katie@cwfn.org

Durham office: 919-401-9600, hope@cwfn.org

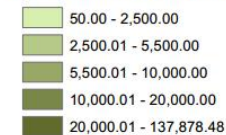
Website: <http://www.cwfn.org>



Concentration of Magnesium Detected in NC Private Well Water ($\mu\text{g/L}$), Average 2010



Concentration of magnesium detected in private wells ($\mu\text{g/L}$)



Magnesium: no drinking water standard

Magnesium can occur in drinking water from the erosion of natural mineral deposits. Magnesium and calcium are typically measures of water "hardness".¹¹

[Information about secondary contaminants in drinking water.](#)