

Copper

Recommended Safety Standards

NC groundwater: 1 mg/L

EPA drinking water: 1.3 mg/L

❖ What is copper?

Copper is a metal that occurs naturally throughout the environment, in rocks, soil, water, and air. Copper is an essential element in plants and animals (including humans).

❖ How does copper get into my well water?

Copper is released into the environment by mining, farming, and manufacturing operations and through waste water releases into rivers and lakes. Copper compounds can break down and release free copper into the air, water, and foods. Copper can also leach out of plumbing, similarly to lead.

❖ What are the health effects of copper?

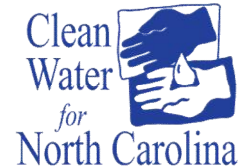
High levels of copper can be harmful and can cause irritation of your nose and throat. Ingesting high levels of copper can cause nausea, vomiting, and diarrhea. Very high doses of copper can cause damage to your liver and kidneys, and can even cause death. The EPA has determined that copper is not a classifiable human carcinogen. For further reading on the health effects of copper, please visit <https://www.atsdr.cdc.gov/substances/toxsubstance.asp?toxid=37>.

❖ Who is most affected by copper?

Studies in animals suggest that young children may have more severe effects than adults.

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

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?

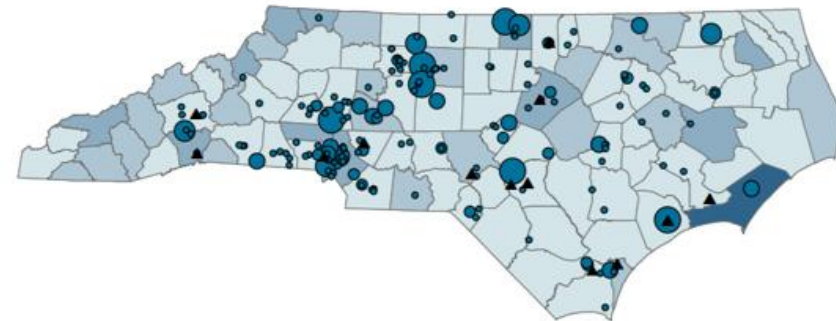
Call Clean Water for North Carolina.

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

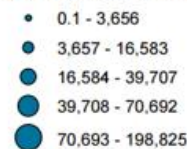
Durham office: 919-401-9600, hope@cwfn.org

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

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

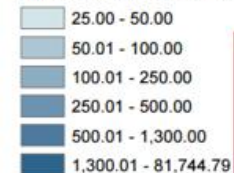


Copper reported in Toxics Release Inventory (lbs.)



▲ National Priorities List sites reporting copper

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



Copper MCL: 1,300 $\mu\text{g/L}$

Copper occurs naturally in the environment and is an essential element for all plants and animals. Copper most often enters drinking water from the erosion of natural deposits and the corrosion of household plumbing fixtures and pipes.^{11,21}