20		12
Ca Calcium 40.078	# Water Hardness	**Mg** Magnesium 24.305

What is it and how does it affect your water?

Dissolved Minerals

Carbonate and bicarbonate compounds formed from calcium and magnesium dissolved in water are the two minerals responsible for making water "hard" or "soft" depending on the amounts present. Hard water requires more soap and detergents for laundry and bathing, and contributes to scaling (commonly known as lime buildup); soft water has the opposite effect.

Our water is considered "moderately hard" and at times "hard" as rain dissolves the limestone present in our soil and deposits the minerals into the lake. There are no adverse health effects associated with these minerals in water.

Hardness & Plumbing

We make every effort to produce water that is non-corrosive to plumbing fixtures and non-scale forming to avoid mineral buildup in pipes. Although the water treatment process does not directly affect water hardness, we are able to affect how hardness reacts by controlling the pH of the water being treated. If the pH is too low, water becomes corrosive to metal pipes; if too high, the hardness will form mineral deposits. Based on our hardness, which ranges between 100 to 140, we've determined an optimum pH range of 7.8 to 8.0 prevents corrosivity and scaling.

There are several commercially available products which help remove undesirable spotting and scaling of mineral deposits—some are water softeners, others are acid-based. Consult manufacture's labels to decide what's best for you.

Some dishwashers have settings for water hardness expressed as grains per gallon. The following scale will help you determine what setting is right for your unit.

Water Hardness Scale		
Grains Per Gallon	**mg/L or ppm**	**Classification**
less than 1.0	less than 17.1	Soft
1.0 - 3.5	17.1 - 60	Slightly Hard
3.5 - 7.0	60 - 120	Moderately Hard
7.0 - 10.5	120 - 180	Hard
over 10.5	over 180	Very Hard

For more information contact the Azle Water Treatment Plant at 817-444-3751