



KENTUCKY  
AMERICAN WATER

WE KEEP LIFE FLOWING®

# UNDERSTANDING WATER HARDNESS

## FOCUSING ON OUR CUSTOMERS

When it comes to providing safe, reliable water service, **we hold ourselves to high standards** and are proud of our team's exceptional track record when it comes to **complying with and surpassing drinking water standards.**

Each year, our team of experts performs **thousands of water quality tests** and works to protect our precious water resources.

**We also invest millions of dollars annually in our water and wastewater treatment and pipeline systems.**

We're committed to our customers and the communities where we live and serve.

The most common cause of white residue on dishes and household plumbing fixtures is hard water.



## WATER HARDNESS BASICS

Hardness is a term used to describe the level of calcium and magnesium in the water. Both naturally exist in groundwater and surface water supplies. As water moves through soil and rock, it dissolves small amounts of naturally occurring minerals and carries them into the water supply. Periods of low precipitation can cause hardness levels to increase for short durations. Hardness levels can also decrease after rainfall or snowmelt due to dilution in the water sources.

## “HARD” VS. “SOFT” WATER

### Hard Water

- Prevents soap and shampoo from lathering.
- As water evaporates, it leaves white spots—a harmless mineral buildup; usually calcium—on surfaces, such as glassware, faucets, showerheads/doors and pipes.
- **Possible Solutions:** Commercial products are available that allow the water to drain from the glassware more completely in dishwashers and products to remove this buildup. Removing and soaking the showerhead in a solution of white vinegar will also dissolve the deposits.

### Soft Water

- Indicates water is low in calcium and magnesium or that it is treated with a home water softener.

## HOW HARD IS YOUR WATER?

Hardness levels range from soft to very hard (see table). Kentucky American Water customers typically receive hard to very hard water (150–200 parts per million - ppm). However, levels can vary from system to system and throughout the year depending on the conditions of the source water.

Hardness Level	Range (in parts per million)	Range (in grains per gallon)
Soft	<17 ppm	<1 gpg
Slightly Hard	17 to 59 ppm	1 to 3 gpg
Moderately Hard	60 to 119 ppm	4 to 7 gpg
Hard	120 to 179 ppm	7 to 10.4 gpg
Very Hard	>180 ppm	>10.5 gpg

## TREATMENT FOR HARD WATER

Kentucky American Water does not treat for or soften hard water, because calcium and magnesium do not pose a health problem and can promote stronger bones.

Treating for hardness is a personal choice. If you choose to install a water softener, be sure to follow the manufacturer's instructions for maintaining the system.



## ABOUT HOME WATER SOFTENERS

The decision to purchase a home water softener is up to you.

### Benefits

- Helps address white spots mineral buildup on glassware, appliances and fixtures.
- Soap products and detergents may perform and lather better.

### Drawbacks

- Increased sodium content: May be a concern for individuals on sodium-restricted diets.
- Potential for corrosion: Softened water can be corrosive to certain metal pipe materials, such as lead.
- Initial and ongoing costs: Include purchase, installation, maintenance, and increased water used to clean and remove minerals from the resin beads in the water softener tank.

### Don't rely on a water softener to:

- Improve the safety or quality of your drinking water.

## NOT SURE IF IT'S HARD WATER BUILDUP? HERE ARE THREE QUICK WAYS TO FIND OUT.

Try these easy steps that will help you determine if it's hard water particles.

- **Step 1:** Collect some of the white residue from your faucet or showerhead.
- **Step 2:** Try one (or more) of these three simple tests.

Test	What to do	If it's <u>hard water</u> buildup...
Vinegar	Add a few drops of vinegar to the white residue.	...it will foam and dissolve
Float	Drop the residue into a glass of water.	...it usually sinks
Crush	Rub the residue between your fingers.	...it can easily be crushed into a powder

If you determine it's not hard water, consider consulting with a licensed plumber for additional assistance.



## LEARN MORE ABOUT YOUR WATER SERVICE

Scan the QR code or visit [kentuckyamwater.com/wqreports](https://kentuckyamwater.com/wqreports) to view a copy of your Water Quality Report online.