COWETA COUNTY
WATER & SEWERAGE
AUTHORITY

Drinking Water Information

2025

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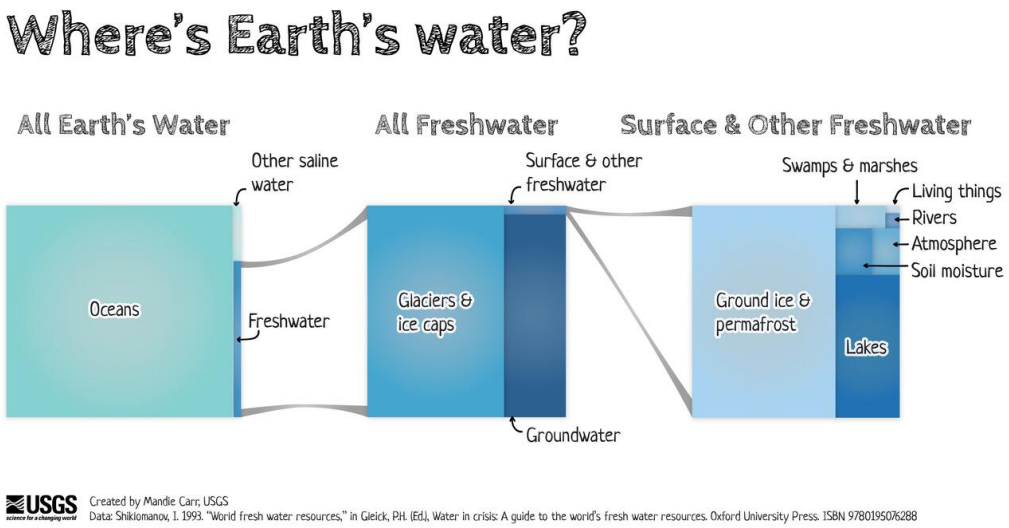
Introduction

Water is the most important resource that we have today. In fact, the amount of water on earth today is the same amount that was on earth at its creation, and no more can ever be added.

Approximately 2.5% of Earth's total water supply is freshwater, and only about 1/3 of the total freshwater supply is available for our use[1]. The sun draws the water to the clouds through evaporation, and water falls back to the earth by precipitation, allowing for continuous recycling of freshwater through the water cycle. Every second, 1.7 million tons of water falls to the earth[2]. **Wow**! However, each day nearly 39 billion gallons of drinking water is consumed in the United States alone[3]. That's about 82 gallons per person each day.[4]

Because drinking water is a natural resource, its taste, color and odor can sometimes vary slightly from day-to-day, town-to-town, and faucet-to-faucet. Drinking water is treated in accordance with strict State and



Federal standards[5] to ensure that it is safe to drink, but problems often arise due to a variety of factors that can sometimes create confusion when customers notice a difference from their normal, everyday tap water. Below are some answers to many frequently asked questions about our drinking water.

Frequently Asked Questions

Drinking Water & Processes

Where does drinking water come from?

- Drinking water can come from several different sources. The simplest of these is from ground wells, where water is pulled and is already naturally purified and typically is suitable to drink. However, most of our drinking water comes directly from surface water resources, such as rivers, lakes and streams; or large reservoirs, such as the BT Brown Reservoir, located in the northern part of Coweta County. *The annual Consumer Confidence Report detailing our water quality test results is available at cowetawater.com.*

What is in our drinking water?

- Surface waters, like every other substance, contain small amounts of bacteria. While most of these are not generally harmful, some of them can cause an illness if ingested. For this reason, treatment plants are required to add chlorine to drinking water to first kill any harmful bacteria that is in the water, and secondly, to prevent bacterial growth while the water streams through the pipelines: thus, all drinking water will contain minimal amounts—or residues—of chlorine. In addition to making the water safe to drink, another goal of the water treatment process is to produce an aesthetically pleasing product; one without any taste, odor, or color. For instance, all surface water contains iron and manganese–two minerals that are naturally found in nearly all bodies of water. While not harmful, excessive amounts of these can create taste and/or color problems that the customer may not find pleasing: therefore, it is important that these minerals are removed. While all water treatment plants are designed to remove these minerals, no plant is able to remove them completely. Trace amounts of these minerals that escape the plant process will, over time, naturally build up on the walls of water mains and personal supply pipes. Occasionally, disruptions in the distribution system (such as open fire hydrants or water main breaks) dislodges minerals in the water mains, resulting in yellowish, or muddy brown looking water. The coloration is from higher concentrations of manganese and iron.

How is drinking water treated?

- The treatment process begins with storing surface water in reservoirs and allowing all suspended matter to settle out (or sink to the bottom of the reservoir). The water is then pumped from the reservoir to a treatment plant for proper treatment to meet Government-defined standards[5]. Coagulants are added to encourage additional settling in large sedimentation basins, followed by a filtration system that removes nearly all particulates (such as dust and pollen). Disinfection is accomplished through the addition of chlorine to kill all pathogenic material. While all of this seems relatively simple, proper treatment is only achieved by constant monitoring of chemical levels to ensure appropriate pH and dosing levels, which are critical for maintaining optimum performance.

How is drinking water quality protected?

- The United States Environmental Protection Agency (EPA) has developed a list of drinking water standards that determine which substances can be in drinking water and the maximum amounts of these substances that are allowed. Also known as maximum contaminant levels, these standards are formulated for contaminants that may have adverse effects on human health.

Black-Colored Mold & Pink-Colored Bacteria

What is the black stuff growing in my bathroom?

Cleaning Guide

What are some ways I can clean an affected area, or how can I prevent growth?

- ✓ **No Humidity = No Mold!**
- ✓ Be sure to wear protective gear when cleaning.
- ✓ Soak affected area in a disinfectant, such as bleach, ammonia, or vinegar
- ✓ Run dehumidifiers, or fans, to remove moisture and circulate air.
- ✓ Be sure to not let sensitive/mold-prone areas to stay moist for more than 24-48 hours.
- ✓ Clean faucet aerators and water dispensers at least once a month.

- Many people see black stuff growing around faucets, shower heads, or in toilets and assume that since it is at the tap, or water source, then there must be a problem with their tap water. However, it is caused by a class of black mold that is often found inside the home and is attracted to damp or wet areas. There are dozens of different classes of molds known as "black mold." The black molds that cause health issues can only occur on repeatedly wet and usually porous materials that contain cellulose, called *Stachybotrys*. Since your toilet is neither porous nor made of sheetrock, you probably don't have the more serious types of black mold that can cause health issues, but rather a non-toxic mold called *Cladosporium spp*. *Cladosporium*, a class of indoor molds, are the most common molds in the world, and in fact, are found in almost all indoor air samples. They like warm, damp, and wet places, and can adapt to smooth, nonporous surfaces far better than many other types of molds. While exposure to medium-high levels of *Cladosporium* can cause allergies or asthma problems in individuals with already existing conditions, such as asthma[6], it is not generally considered dangerous in small quantities. Places like your toilet bowl and tank are viable places for this class of mold to grow due to their smooth, nonporous nature: however, treating these places with a strong mineral/rust remover can prevent growth of the mold. A disinfectant should be used alongside the mineral/rust treatment to clean the remaining parts of the toilet (including hinges, under the seat, and the bolts on the floor) to remove spores (invisible to the naked eye) that could begin regrowth of the mold.

How do the spores enter my home?

- Microscopic *Cladosporium* spores are present in leaves, soil, and mulch, and are found in areas that are heavily moist. The spores enter your home with your normal coming and going, through open windows/doors, on your own hair/clothing, and on pets; realistically, it is nearly impossible to keep them out of your home. When the spores find a moist environment, especially ones that are dark and have limited airflow, they are far more likely to survive and thrive. These are the normal conditions in bathrooms—especially in faucet aerators—but the mold can also be found in the water dispenser of a refrigerator, drain tube/bucket of a dehumidifier, or beneath the mat in the kitchen sink. These locations also provide the fungus with a source of organic nutrition, from shampoo and soap to liquid dish detergent and food particles. These spores are not viable in chlorinated water, as it damages their cell walls, ultimately killing them[7]. However, where water stands for any extended period of time (such as in a toilet, at the mouth of faucet, or on a shower curtain), the residual chlorine disinfectant dissipates into the air, and spore growth may occur. Customers who remove the chlorine from their water by using an activated carbon filter (commonly found in whole-house filtration) may even be more likely to experience the problem.

What is the pink stuff growing in my bathroom?

- A red or pink pigmented bacterium known as *Serratia marcescens* is the general cause of the pink film that some customers may see in their bathrooms. These bacteria are common inhabitants of our environment and can be found in many places, including human and animal feces, dust, soil, surface waters, and even in the air. The bacteria will grow in any moist location, including soap residues in bathing areas, fecal matter in toilets, and soap/food residues in pet water dishes. Many times, the characteristic pinkish films appear during and after new construction or remodeling activities, or during a time of year when windows are open for most of the day. *S. marcescens* cannot survive in chlorinated water, but if locations such as toilets in guest bathrooms where the water is left standing long enough for the chlorine residual to dissipate, growth can begin to appear. Furthermore, these bacteria can become more common in everyday spaces if a whole-house filtration system is implemented, due to the chlorine being filtered out of the water. Periodic and thorough cleaning of the surfaces where it accumulates followed by disinfection with bleach, ammonia, or vinegar is the best way to control these bacteria.

Boil Water Advisories

What is a 'Boil Water Advisory', and why are they issued?

- Boil water advisories are issued when a water source pressure level drops below 20 psi. This typically occurs because of a water main break somewhere in the distribution system. With a significant loss of pressure, there is a **possibility** for water to become contaminated with harmful bacteria. The boil water advisory is a preventative measure for customers to be aware of this possible contamination.

What determines the length of a 'Boil Water Advisory'?

- Samples are taken from the area affected by the pressure drop to our lab for analysis of microbial presence. Bacterial testing requires a 24-hour incubation time, and once we have confirmation that the water is not contaminated, the boil water notice will be lifted.

Does the issuance of a 'Boil Water Advisory' alert mean that the water has been contaminated?

- **NO.** An advisory means that due to the loss of water pressure, there is a **possibility** that the water could be contaminated: therefore, we operate under the precaution that contamination is present, until we can confirm the results of the microbial water sample tests.

I consumed water before I knew of the advisory, what would happen?

- If water was consumed before hearing the advisory, your risk of illness is still low, since most Boil Water Advisories are issued as a precautionary measure when water mains are repaired. If you begin to experience symptoms such as fever, diarrhea, or vomiting a couple hours after ingesting the water, you should seek immediate medical attention. Advise your healthcare practitioner that you consumed water during a 'Boil Water Advisory.'

What to do to Use/Drink Water During an Advisory

Bring water to a rolling boil for AT LEAST 1 MINUTE before consuming. All harmful bacteria that can be present are killed during this period.[9] Water filter systems do not remove harmful bacteria; boil water even if on a filter system.

What activities require boiled water other than for consumption?

- ✓ Brushing Teeth
- ✓ Cooking (can be cooled after boil)
- ✓ Drink Preparation
- ✓ Washing all food
- ✓ Ice Preparation
- ✓ Pet's Water
- ✓ Baby Food Preparation

What activities do NOT require boiled water?

- ✓ *Washing dishes—use hot soapy water and add 1 TBSP chlorine bleach per 1 GALLON as a precautionary measure. Rinse with boiled water.*
- ✓ *Laundry*
- ✓ *Bathing – using care not to ingest water through the mouth (shower risk)*
- ✓ *Hand Washing*

Common Customer Issues Following a Lifted Advisory

Sputtering Faucet

✓ Air is caught in your lines. Turn on tap slowly and run water until the sputtering ceases.

Low Water Pressure

✓ Check Faucet screens for trapped particles. Remove the screens, clean with an old toothbrush, and put them back on the faucet.

Discoloration of Water

✓ Flush water pipes by running water until it is clear. Do not wash clothes if water is discolored; wait until the water runs clear at the tap and run a load of dark clothes first.

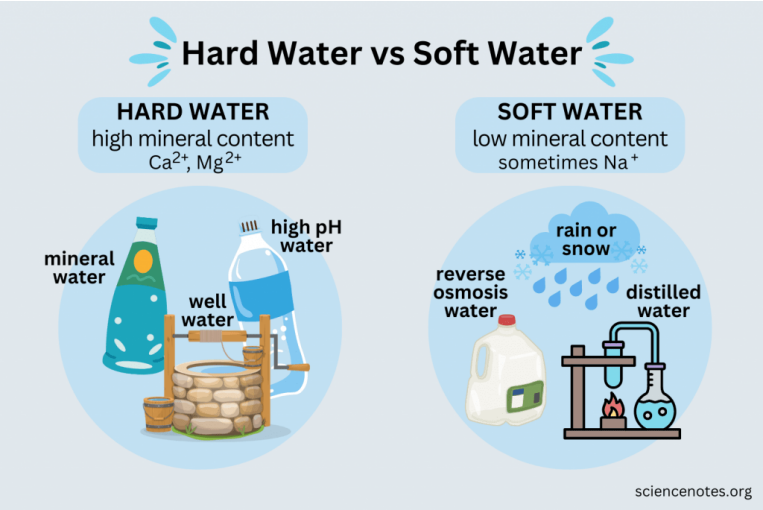
Do I need to change my water treatment filter following an advisory?

✓ Most likely, yes. Consult the unit's owner's manual to begin disinfection/replacement steps.

Hard & Soft Water

*Is my drinking water **hard** or **soft**, and what does that mean?*

- Hard water is water that contains dissolved minerals (calcium and magnesium), while softened water is treated to remove these minerals and replace them with sodium ions[10]. Water's "hardness" and "softness" levels are due to the concentration of the dissolved ions in the water, the lower the mineral concentration, the softer the water will be. The water produced at Coweta County's BT Brown Water Treatment plant continuously tests in the soft range (0-60 ppm), meaning it contains very few minerals. There are multiple benefits to having soft water, such as: detergents working better, hair staying moisturized, and no scum residue left on dishes/shower curtains after water usage. Soft water can help save money because less soap and detergents need to be used, and since they don't have to work as hard, the life of your washing machines, dishwashers and water heaters can be prolonged. On the other hand, hard water is to blame for dishes with spots and residue, and bathtubs with lots of film and soap scum. Even hair washed in hard water may feel sticky and look dull. Softened water is not, however, suggested for those with heart or circulatory problems[11] or others who may be on a low sodium diet, as there is an increased concentration of sodium in softened water.

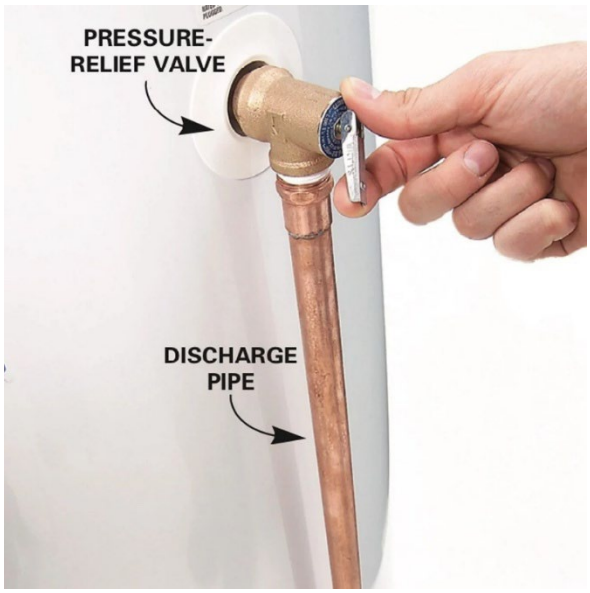


Do I need to flush out my water heater?

- Customers sometimes report white particles that clog plumbing fixtures. These may be bits of calcium carbonate scale coming from your water heater. The scaling may worsen if the water heater thermostat is set too high. If the particles are calcium carbonate, you may need to flush your water heater. Many manufacturers recommend periodic flushing of water heaters to remove sediment that can build up and doing so at least once a year. The sediment can cause discoloration of the water and can make the water heater less efficient. Be sure to follow the manufacturer's owner's guide for your water heater. Below details other fixtures on your heater that may need attention.

Water heaters contain sacrificial anodes. This prevents corrosion of the water heater. The anode may need to be replaced periodically as well.

Pressure Relief Valves (PRVs) are located near the water heater. After some time, brown water particles of iron or manganese may become lodged in the PRV. If you are noticing low pressure in all areas of the home, refer to the user's manual for instructions on cleaning. (Pictured below is a common PRV)



Color & Odor

What is the cause of the Brown, Yellow, or Reddish color in my water, and what should I do?

- Discoloration of tap water is often due to higher-than-normal levels of iron and/or manganese –two minerals that are filtered out by water treatment plants: however, it is impossible to remove 100% of these minerals. The residue that survives the treatment process will end up sticking to the walls of water mains. Discoloration is an indication that either iron or manganese deposits have dislodged from inside the supply plumbing or the main pipelines. Any disruption in the water flow, such as a water main break, fire hydrant activation, or even vibrations caused by large trucks or construction equipment may knock off small particles of these minerals and stir up sediments in the pipes. It is a temporary condition that usually clears up in a couple of hours. The water may not be aesthetically pleasing, but according to the EPA[12], short-term increased levels of iron or manganese are not public health threats.

Oftentimes the customer can correct this problem by simply flushing their lines (opening several cold faucets in the home) for about **fifteen (15) minutes**. If possible, start with the outside hose spigot. Monitor the color there first, and when it clears start opening the cold water spigots inside the home to clear the plumbing lines. If the unpleasant color remains, we ask that you contact the Water Authority so we can flush the main lines to expedite this process.

Why is my hot and/or cold water coming out cloudy from my faucet?

- The hot and cold water from our kitchen sink can sometimes come out very cloudy white, but it noticeably clears after about 20 seconds. Cloudy water, also known as white water, is caused by tiny air bubbles suspended in the water. It usually happens when it is very cold outside, and air gets mixed in with the water supply. Periodically, repairs need to be performed on the distribution system and when this occurs, air can be introduced into the pipes. It is completely harmless, and if left sitting, the bubbles will naturally disappear within a few seconds, and you will see the water clear. The last of the air may collect around the surface of the water, giving it a soapy appearance.

  To clear the lines in your home, open several cold-water taps and allow them to run **for fifteen (15) minutes**. If the white water is only in your hot water, the issue may be a bad anode in your water heater, mentioned in the *Hard & Soft Water* section above.

Why does my water smell like rotten eggs?

- The rotten egg odor is caused by the presence of hydrogen sulfide (H_2S), which is a gas that can dissolve in water at standard room temperature. There are several situations that could cause the detection of H_2S, but the primary cause is when water has been sitting in a pipe or heater, unused, for an extended period of time. The vast majority of H_2S reports by customers are caused by odors from drains as opposed to odors in the tap water[13]. Water that sits in the trap under a sink typically contains bacteria which can produce H_2S. When a customer turns on their tap and water goes down the drain, this water is disturbed and the air in the drain containing this H_2S is displaced, resulting in H_2S moving up through the drain and into the air above the sink. Since H_2S is a gas, it can disperse throughout a bathroom in a few seconds, making the whole room smell like "rotten eggs." Because this occurs when the water is turned on, it is easy to think that the water is the source of the problem.

  The longer water sits in a trap and is undisturbed, the more time the bacteria have to produce H_2S, and the more intense the odor can be. Often customers will report the odor is most intense when the water is first used in the morning. A quick way to determine if this is the cause of the odor: capture the first water out of the tap in a cup, without letting any go down the drain, step outside and smell the water in the cup. If there is no H_2S odor, then the problem is likely with the drain. Allowing some water to go down the drain and then checking for the odor can confirm the source of the odor.

  Another potential source of a "rotten egg" smell could be the water heater. If it is not properly maintained, the H_2S gas may develop here. This can be confirmed by checking if the smell is coming from the cold or the hot water tap—always refer to the user manual for your heater. Increasing the temperature to 160°F (or the high setting) for 24-48 hours will kill off any bacteria growing in the heater. Drain the heater and allow it to fill with fresh water. Then turn on all hot faucets to flush it out. If increasing the temperature is not an option, consult with a plumber about chlorination of the heater. The other issue that may be causing a sulfur smell is a bad anode inside the water heater.

  CAUTION: Increasing the water heater temperature can be dangerous. Consult with the manufacturer or dealer regarding an operable pressure relief valve, and for other recommendations. Be sure to lower the thermostat setting and make certain the water temperature is reduced following treatment to prevent injury from scalding hot water and to avoid high energy costs. Be sure to use caution with the hot water during this time, as it can scald.

Troubleshooting the "Rotten Egg" Smell

There are three suggested ways to approach this issue:

- ✓ Remove the P-Trap under the sink and clean out.
- ✓ **Pour 1/4 cup of household bleach into the drain; let it stand for **about fifteen (15) minutes** and then flush by letting the faucet run for about 15-30 seconds.
- ✓ Put 2 tablespoons of baking soda down the drain with 1-2 ounces of water (run faucet for 2-3 seconds); let it stand in drain for several hours, then flush the trap by letting the faucet run for about **ten (10) seconds**. This will often take a repeat application to eliminate the odor.

** The bleach treatment is usually more effective, however, there may be residual bleach odor for a day or two. Adding Ammonia or vinegar are two other options.

Why does my water have a fishy or earthy smell?

- A fishy or earthly smell is likely the result of algae growth in one of the water system's reservoirs, partially caused by the change of season. Different types of algae can cause your water to smell fishy, moldy, grassy or even like cucumbers or violets. Refrigerating the water can help eliminate the odor and adding a slice of lemon will remove any bitter taste.

  When a funny taste or smell is first detected in the water supply, water treatment plant operators can correct the problem with an application of Powdered Activated Carbon, which removes taste/odor, or they may use copper sulfate application to control the natural algal growth in the affected reservoir.

Why does my water smell like chlorine, and how can I reduce the odor?

- Coweta Water Authority, like all water suppliers, disinfects its water with a chlorine application to protect against any harmful bacteria (from birds, animals, and even humans) that can enter reservoirs. The chlorine dose also protects the water as it travels through the miles of pipe to get to your home. Those with a sensitive palette may find their water has the odor of chlorine and sometimes may even have a chemical taste. These odors are attributable to the residual disinfectant that is required in all distribution systems by the Safe Drinking Water Act regulations[14]. The chlorine concentration in your water will vary depending on a variety of factors such as the distance you live from the water treatment plant, and the time of the year (chlorine will dissipate faster in warmer weather). Generally, higher concentrations are found closer to the plant during the winter. This is due to the water having a shorter residence time in the pipe (shorter distance and higher flows) and lower water temperatures. Conversely, the lowest levels will occur at the ends of the system, in the summer when water temperature is high (can reach 92°F). Water with elevated free chlorine levels can also be described as having a "chemical taste." Because of this variability, water at one home may not have the same degree of odor or taste as water from another part of the county. Two simple and inexpensive ways to reduce the chlorine odors include: fill a gallon milk jug ¾ full of water, put the cap on and shake vigorously for a couple of minutes, then remove the cap and allow the jug to sit in a sunny window throughout the day. The next way is to simply fill a pitcher and keep it in the refrigerator; the open pitcher should allow the chlorine to dissipate.

Why does my water have a strong chemical, gaseous, or medicinal smell?

- Coweta Water Authority, like many other suppliers, uses a gaseous form of chlorine known as chlorine dioxide (ClO_2) to treat the reservoir water and help eliminate metals such as iron and manganese. Chlorine dioxide is also helpful in removing many organic odor compounds and kills waterborne pathogenic bacteria and viruses. While it is very helpful in treating water, small amounts remain in the water that is delivered to your home. When a water tap is opened, small amounts of chlorine dioxide will diffuse into the air and react with many common household compounds. Studies have not identified any health concerns associated with these combined odors. All homes have volatile organic compounds (VOC's) in the ambient air that are produced by scented products (soaps, candles, air fresheners, incense, potpourri), cleaning agents, furnishings (new cabinetry), and many other common household items. Chlorine Dioxide gas is notorious for reacting with new carpet, fresh interior paint, and new furniture, and creating odors described as gaseous, medicinal, cat urine, or simply as a strong chemical

odor. The odor will continue until the level of VOC's decreases (new smell fades). This can take a few weeks or a few months, depending on the ventilation in the home. Opening windows and turning on fans where possible may help eliminate or reduce odors more quickly.

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