

Frequently asked questions:

My water is discolored. Why would this occur, is it safe to drink and how can I get rid of it?

Discolored water results when water traveling through the water mains reaches high enough velocities to stir the iron and manganese sediment lying in the bottom of the water mains. Water main breaks, fire fighting activities, and extremely high system demand are typical causes of discolored water. There are no health risks associated with type of problem, as the particulate matter causing the discoloration is simply iron and manganese oxides, and are not harmful. The best way to eliminate this problem would be to turn all faucets on at the same time and let them run a few minutes. If it does not clear, try again later. It may be because the sediment in the water main has not settled out yet. If so, wait several hours and try again.

If you have found that this discoloration has occurred while doing white laundry, there is a solution you can purchase at your local hardware store called “Iron Out”. Only use this after the water has cleared and rewash the white clothing.

My water bill seems unusually high. Is it possible that I used that much water?

Most customers have very consistent water usage from one quarter to the next. Sometimes summer lawn irrigation can produce some surprisingly high bills especially for homes with automatic lawn sprinklers. If your bill seems high, check the reading on your meter to see if the meter was read correctly by the Water Department. If the reading checks out, there are a number of tests that can be performed to try to find the cause of the additional usage.

If you have a **automatic sprinkler system** take a meter reading before a cycle and after a cycle to see how much water is being used each time your sprinkler system runs.

To see if something within the home is “stealing” water, take a meter reading before you go to bed at night, and then read it when you get up in the morning. If there was water used during the night, there is a good chance that something is leaking somewhere.

It may be possible that your **toilet** has a **secret leak**. You can test it by putting a small bottle of food coloring in the tank of the toilet. Don’t flush for an hour or longer. If the colored water shows up in the bowl, the tank is leaking. See chart below for wasted water per quarter at 60 psi water pressure.

The two main culprits for unintended water consumption within the home are toilets and water softeners. If the flapper valve within the **toilet** tank is leaking water into the bowl, the tank will periodically have to fill to replace the lost water. This type of situation could go undetected for sometime, resulting in a high water bill. **Water Softeners** periodically backwash themselves with fresh water to regenerate. Sometimes the

backwash valve can get stuck in the open position, causing water to be continuously wasted to the sewer system. This is a situation that very often goes undetected because there is little associated noise created, other than a soft trickling sound in the sewer pipe. This can result in a lot of water being wasted and some really high bills. If you find this happening in your home, turn the feed to the softener off and bypass if possible, and get the unit repaired immediately.

Little leaks can add up in a hurry. A faucet drip or invisible toilet leak that totals only two tablespoons a minute comes to 15 gallons a day. That's 105 gallons a week and 5,460 wasted gallons of water a year at a minimum.

WASTED WATER PER QUARTER AT 60 PSI WATER PRESSURE

<u>Diameter of Stream</u>	<u>Gallons of Water</u>
1/4" -----	1,181,500
3/16" -----	666,000
1/8" -----	296,000
1/16" -----	74,000

My water is cloudy and bubbly?

Possible causes - Distribution System

Shut down of water mains or low main pressure. Air bubbles may be present in water after there has been a break in or draining of a water main. Most water mains are equipped with air relief valves, which permit air to enter the main when the pressure drops. These valves also permit air to escape when the main is refilled. However, if the main is filled too rapidly or if there are no air valves in the line, air is trapped within the main.

Water can absorb more air at higher water pressure. Water under a pressure of 40 psi is capable of absorbing about four times the amount of air it absorbs at a normal atmospheric pressure. A reduction in pressure (for example when water fills a glass) releases air bubbles and results in a milky appearance.

Temperature changes. Cold water can hold a greater amount of air in solution than warm. Water at normal atmospheric pressure and a temperature of 30 degrees f can retain 14.6 mg/L of dissolved oxygen in solution; whereas, water at atmospheric pressure and a temperature of 80 degrees F holds only 8.14 mg/L. Therefore, air is released upon warming cold water saturated with air. The air is released in the form of small air bubbles, which give the water a milky or carbonated appearance.

Possible Causes - Private Plumbing

Overheating of hot-water systems. Complaints of air in water have been traced to the overheating of hot water tanks. This usually occurs in homes where there are old-style, manually operated heaters. However, it occurs in newer homes where automatic hot-water tanks fail to operate properly or where the thermostat is set at an excessive temperature—above 140 degrees F.

Water releases air bubbles when it is heated. For this reason, hot water usually contains some air bubbles. This condition is most noticeable during the winter months when the water normally contains the most air in solution and in the first water drawn from a hot-water tank after the tank has been idle overnight.

Warming of cold-water lines. Water releases air bubbles when it is warmed. It is not unusual, therefore, for cold-water lines in basements, aboveground, or attached to the sides of building and exposed to the sun, to deliver milky water.