## **WHY**

## IS MY WATER

# **CLOUDY?**



A Customer Service Series Brought To You by Flowing Wells Irrigation District

### THOSE ARE MILLIONS OF TINY AIR BUBBLES

They're harmless and not a health concern. Water in the Flowing Wells Irrigation District distribution system is under pressure, causing any air present to be dissolved until the pressure is released at the tap. If the amount of dissolved air is low, your water may appear to sparkle or have small bubbles.

If there is a greater amount of dissolved air in your water, millions of very tiny bubbles will appear when the pressure is released, giving the water a cloudy or white, milky appearance. It may take several minutes for the air to escape. As it does, the water will clear from the bottom of the glass, upward.

# WHERE IS THE AIR COMING FROM?

#### SINGLE TAP

Allow water to run a few moments, then fill a clean, clear glass or jar. Evaluate the appearance of the water. Then perform the same test at other sinks. If the water at other sinks is clear, the original tap is most likely the air source. To remedy the problem, begin by removing the aerator (the small screen-like device at the end of the faucet). Sediment may have accumulated in it. Clean it thoroughly and reinstall it. If the water still appears cloudy, you may wish to replace the aerator. If replacing the aerator does not remedy the situation it may be necessary to replace the internal faucet parts or replace the entire faucet assembly.

#### AIR IN THE WATER/MILKY WATER

Milky water is usually due to air bubbles in the water or zinc dissolved from galvanized household piping. Either condition will give the water a milky appearance. The sources and causes of air in water and milky water can be divided into two groups, the distribution system and private plumbing systems.

Dissolved air is present in the District's groundwater production wells. Air may also enter the distribution system during the pumping process. Water can absorb more air at higher water pressure. When water containing entrapped air is drawn from a faucet, the pressure is decreased and air bubbles are released giving the water a milky appearance. Cold water holds a greater amount of air in solution than does warm water. Therefore, when cold water saturated with air is warmed, the air is released in the form of small air bubbles, which give the water a milky or carbonated appearance. Air can also enter the system when a fire hydrant is opened or a break occurs.

### HOT WATER

Hot water will be sometimes be cloudy due to the physics of heating and moving it through a pressurized system. As water is heated, the gasses dissolved in the water will escape. (That's why most water heaters have a pressure safety device.) As the hot water is released at the tap, the gasses immediately begin to separate from it. The water will quickly clear.

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 may occur in newer home where automatic hot-water tanks fail to operate properly or where the thermostat is set at an excessive temperature--above 140°F.

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

Dissolved air in the water will not harm you or damage your plumbing or appliances. It can, however, have an unpleasant appearance to some people. Flowing Wells Irrigation District is committed to delivering high quality water to you, in a cost-effective and environmentally sensitive manner, including the control of dissolved air.



We hope this explanation will reassure you regarding the safety of your water. If you have further questions, please call the Flowing Wells Irrigation District business office at 887-4192.