



If it is really
Air,
how come I can *SEE IT?*



One of the most common complaints or expressed concerns that are received by ALL water systems involve “cloudiness” in the water. And, unless it is a constant issue, the cause is almost always entrapped air bubbles. It is most common in systems, such as ours, which draw their water from WELLS.

To most efficiently utilize the resources, most wells are operated such that the level of the water in the well during pumping is not far above the entrance to the suction port of the pump. However, this level can be altered by various conditions such as demand (how much water is required on a given day) water table level (the amount of water available and remaining in the ground - this can be effected by weather patterns and other factors) and pump parameters, among other conditions.

When the water level in the well drops too close to the pump intake, a condition called “vortexing” can occur. This is similar to the “tornado - like” pattern that appears when the drain is opened at the bottom of a sink full water. And when this happens, air can be drawn in with the water. Because the pump provides pressure, the air becomes dissolved in the water, and remains so until....

Oh dear. You opened a tap to draw a nice glass of water and you have, instead, a gray, cloudy... something. Until it clears from the bottom up. What is going on?!?!?

While the water is in the pipes it remains pressurized. When pressurized, water can dissolve more air than at normal atmospheric pressure. As soon as it is let out of the tap, that air begins to come out of solution and forms tiny, microscopic bubbles, which get bigger slowly until they are no longer microscopic and begin to form a cloud which engulfs the whole glass. They continue to grow and as they grow they begin to float upward and, eventually, burst at the surface of the glass. “Now there is the glass of water that I wanted!”

Often this condition rights itself within the wells when the factors mentioned above change; sometimes quickly, sometimes not so quickly. Sometimes we must make operational changes. In general, we try to avoid these, because most of the changes we can make decrease efficiency and therefore increase operating costs. As there is no danger to the public, and when the problem is merely a temporary aesthetic one, it is hard to see where the increased costs are worth it for a short-term problem. If the problem persists, and is excessive, operational changes become necessary due to potential negative impacts on equipment.

While we obviously want to provide you with the best possible water, on occasion these and other non-hazardous problems can occur. However, be assured that the water we provide is checked, tested, and scrutinized every single day without fail. If there is ever a problem of which you need to be aware, notifications will begin IMMEDIATELY.

Whenever you have a question, don't hesitate to contact us right here:

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