

COMMON CONCERNS OF THE PUBLIC WATER SYSTEM

Chlorine Odour

There are water quality standards the water system must follow in accordance with *The Drinking Water Safety Act*. The free chlorine residual must be at least 0.5 mg/L in water entering the distribution system and a residual of 0.1 mg/L at all times at any point in a water distribution system. This is to ensure that if ever there was a problem in the distribution system there will be free chlorine residual to help in disinfection of the system. Most systems keep a higher residual in case a problem should occur. At all times, the Rural Municipality of Brokenhead system keeps a free chlorine residual between 0.55 mg/L and 0.60 mg/L, which is much lower than most systems similar to the RM of Brokenhead, maintain it.

There are practical solutions for home owners to solve this. One is to install an activated carbon filter at your tap to eliminate residual chlorine in water safely delivered to your home. Second, is filling a pitcher of water and set it aside for several hours while chlorine dissipates. Transferring the water rapidly between two pitchers can accelerate chlorine dissipation. All water distributed from the system is safe to consume or to use in everyday situations.

Cloudy Water

Once in a while, you get a glass of water and it looks cloudy; maybe milky is a better term. After a few seconds it clears up! The cloudiness might be caused by the water in the pipes being under a bit more pressure than the water in the glass, but is more likely due to tiny air bubbles in the water. Like any bubble, the air rises to the top of the water and goes into the air above, clearing up the water. Cloudy water, also known as white water, is caused by air bubbles in the water and is completely harmless. It usually happens when it is very cold outside because the solubility of air in water increases as water pressure increases and/or water temperature decreases. Cold water holds more air than warm water. In the winter, water travels from the reservoir which is very cold and warms up during its travel to your tap. Some of the air that is present is no longer soluble, and comes out of solution. Water pressure is also a factor. The water in the pipes is pressurized to a degree which helps to get the water all the way from the water source to your home. Water under pressure holds more air than water that is not pressurized. Once the water comes out of your tap, the water is no longer under pressure and the air comes out of solution as bubbles (similar to a carbonated soft drink). The best thing to do is let it sit in an open container until the bubbles naturally disappear.

Dual Check Valve

When the Rural Municipality of Brokenhead installed a Public Water System there were requirements set by the Water Services Board as they were acting owners until completion of the system. The requirements were to supply a dual check valve along with the water meter. The reason is to not allow back flow into the RM of Brokenhead Distribution System. At the time of purchasing it was recommended that the RM of Brokenhead purchase the Watts brand that worked by water flowing through off set ports on each side of check valve with plastic back flow valves on each port. These valves had started making a vibrating noise after being in use 2-3 years when there was a steady flow of water. This type of dual check valve has been discontinued and upgraded. The new ones are dual check valves with ports being in line with one another so water flows in a straight direction that reduces chance of any vibration. Since upgrading, there have not been any problems occurring. These new style check valves are kept on hand and when a complaint is received a new one is delivered and is the responsibility of the home owner to have it installed.

Expansion Tanks

At the time that the Rural Municipality of Brokenhead public water system was handed over from the Water Services Board, the RM of Brokenhead was not informed, or it was unknown at the time, that there might be a problem after installing the dual check valve. After time, it was determined that when all household appliances (hot water tank and washing machine) were in close vicinity of dual check valve that a high pressure issue would be caused. This was happening from hot water tank heating and when washing machine shuts off after cycle. This creates a water hammer which in return increased pressure in the water line resulting in the hot water tank pressure release valve to open and release pressure. It was determined that an expansion tank was required to take up this extra pressure. At that time there were no codes known on placement of these expansion tanks. There are codes now that require expansion tanks to be at least 18 inches away from the hot water tank supply. When water meter, check valve and expansion tank are delivered, installers are advised to place expansion tank right after dual check valve giving proper distance away from water heater. An updated inspection is now done to ensure proper installation.