



City of Saginaw Residential Backflow Testing and Prevention

Why Do I Have To Get My Assembly Tested?

The City of Saginaw operates a Cross Connection Control Program to protect the integrity of the water distribution system and the health, safety and general welfare of the people who use it. The Cross Connection Control Program per City Ordinance 97-14 requires proper installation of specific backflow assemblies on any residence that utilizes an irrigation system. The assembly must then be tested by a certified backflow prevention assembly tester upon installation, after any repairs, if it is relocated, and at a minimum of annually thereafter to ensure the protection of the public water supply.

What Is A Backflow Assembly?

A backflow assembly is a device that is installed on your home's water pipes that allows water to flow in one direction but never in the opposite direction. Think of it as a one-way gate that allows water from the city's public water supply to flow into your home's piping but stops water if and when it ever tries to flow backwards into the main water supply. The backflow assembly's sole purpose is to prevent drinking water from being contaminated due to backflow.

What Is A Cross-Connection?

A cross connection is a permanent or temporary connection between potable drinking water and anything which can pollute or contaminate the water supply. Irrigation systems and a garden hose are the most common cross connections for a residence. For example each of these common uses of a garden hose sets up a cross connection:

- forcing it into a clogged gutter, downspout, or sewer pipe to flush out the clog
- connecting it directly to a hose-end sprayer to apply pesticide or fertilizer to your yard
- connecting it to a soap-and-brush attachment to wash your car, boat, or siding
- letting the end of the hose lie in a puddle or pool of water on the ground
- leaving the hose laying in a pool or hot-tub

No doubt you can think of other examples. In each of these cases, if backflow happens, your household's water lines could be contaminated. Depending on how long the backflow event lasts, the contamination could spread to the public drinking water system.

What Is Backflow?

By definition backflow is the undesirable reversal of flow of water or mixtures of water and other liquids, gases or other substances into the distribution pipes of the potable supply of water from any source or sources. This reversal of flow or "backflow" can allow contaminated water to flow backward, drawing a contaminant into the water supply. There are two types of backflow; backpressure backflow and back-siphonage backflow.

- Backpressure backflow by definition is water flowing opposite to its intended direction, either from a loss of pressure in the supply lines or an increase in pressure on the customer's side (in either of these situations, if any affected customer's pipes include a cross connection, contaminants could be drawn through the cross connection into that customer's pipes—and, if the backflow continues, perhaps even into the water mains)
- Back-siphonage backflow is caused by negative pressure in the supply piping. Some common causes of back-siphonage are line repairs or breaks in the water mains, lowered water main pressures due to a high water withdrawal rate, such as fire-fighting or water main flushing.

Who Can Test Backflow Prevention Assemblies?

Homeowners will need to hire a private company to test their backflow assembly. The City of Saginaw provides a list of state certified backflow prevention assembly testers on our website.

What Type Of Backflow Prevention Assembly Do I Need?

The City of Saginaw adopted the 2018 IPC (International Plumbing Code) in February of 2019 and under these new codes any new backflow prevention assembly installed for use in an irrigation system will require a RP (Reduced Pressure Principle) a PVB (Pressure Vacuum Breaker) or an Air Gap. If you already have a properly installed assembly you are allowed to keep it as long as it is working properly or able to be repaired. If you have to install, replace, or move an assembly you will be required to bring the device up to the new IPC code.

Who Should I Contact For More Information?

If you have any questions concerning backflow installations, certified testers, or approved backflow prevention assemblies please contact the Environmental Department at 817-230-0500