

Responsibilities

- State law mandates, and Ohio EPA verifies, that all public water systems implement a backflow prevention and cross-connection control program consistent with Ohio Administrative Code Chapter 3745-95.
- **Fairfield's Public Utilities Department** is responsible for the **protection of the public water supply**, which begins at the water treatment plant, includes the entire water distribution system and service connections, and ends at the point of delivery to the consumer. Fairfield requires backflow prevention devices for the **containment** of potential pollution sources.
- **Butler County Health Department** is responsible for the **protection of the consumer's water system**, which begins at the point of delivery from the supplier and includes all piping installations inside the consumer's premises. The Health Department requires backflow prevention devices for the **isolation** of pollution sources within a building.
- **Water Customers** are responsible for **providing backflow prevention devices and having them inspected, tested and repaired**. Tests are required at the time of installation and at least every twelve (12) months thereafter. Inspections, tests, and repairs of backflow devices are at the expense of the water customer and must be performed by a certified plumber.

Fairfield Backflow Program

The City of Fairfield requires approved containment backflow prevention devices on industrial and commercial water lines, as a means to protect the public water system from hazard.

As a courtesy, Fairfield mails reminder letters and forms to customers to help them complete the required annual testing of their backflow device(s).

Fairfield also conducts routine facility inspections to verify compliance with municipal backflow rules.

For more information about containment backflow prevention devices, contact:

Fairfield Public Utilities Department
513-858-7775

For information about isolation backflow devices, contact:

Butler County Health Department
513-887-5253



City of Fairfield, Ohio Public Utilities Department

What you need to know about

BACKFLOW PREVENTION & CROSS- CONNECTION CONTROL

Fairfield Public Utilities Department
5021 Groh Lane
Fairfield, Ohio 45014
513-858-7775
www.fairfield-city.org/water

What is Backflow?

Backflow is any reversal of flow within a piping system. Fairfield maintains the high quality of our water until it enters a customer's piping system. After water enters a customer's premises, Fairfield cannot control its quality or use. Allowing water to flow backward from a customer's piping into the distribution system could endanger the public water supply.

What is a Cross-Connection?

A cross-connection is any temporary or permanent connection between potable water system piping and any other piping that may contain contaminants. A temporary cross-connection could be a hose connected to a faucet with its other end submerged in a swimming pool, car radiator, or industrial cooling system. It could be a garden hose connected to an insecticide dispenser. Cross-connections can defeat your plumbing system's built in backflow prevention principles, allowing harmful substances to backflow into your water pipes.



What causes backflow?

Backflow can be caused by two different forces: backsiphonage and back-pressure.

- **Backsiphonage** occurs when there is a sudden reduction in water pressure within the distribution system. This can occur when a water main breaks or when a car strikes a fire hydrant. The sudden pressure drop creates suction that can siphon water from your pipes and anything connected to them, back into the distribution system.
- **Backpressure** can cause backflow when the water pressure inside a boiler or other equipment connected to a consumer's piping system becomes higher than the pressure in the distribution system. Some types of pressurized equipment contain soap, anti-freeze, or other potential contaminants.

How can backflow be prevented?

Backflow forces can be prevented by eliminating cross-connections and using backflow prevention devices. Industrial and commercial applications require backflow devices such as:

- Air Gap Separation
- Double Check Valve
- Reduced Pressure Double Check Valve

The type of protection required is based on the potential for backflow and the degree of hazard to the public water supply.



Reduced Pressure Backflow Device



Double Check Valve Device

Where is protection required?

Fairfield requires a reduced pressure backflow prevention assembly to be installed on each water line entering an **industrial facility or commercial building**. Reduced pressure devices must be installed inside a building unless they are protected from cold temperatures and freezing by installation within a "hot box." They cannot be installed in pits or below grade level. Fairfield also requires fire lines to have double check valve assemblies, which are primarily protective devices and are usually located in outside meter/vault pits.