

Responsibilities

- **Butler County Department of Environmental Services** is responsible for **protecting the public water supply**, which begins at the source, includes the entire water distribution system and service connections, and ends at the point of delivery to the consumer. BCDES requires backflow prevention devices for **containment** of pollution sources.

- **Butler County Health Department** is responsible for **regulating 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. Backflow devices required are for **isolation** of pollution sources within the building.

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.

BCDES Backflow Program

BCDES requires approved backflow prevention devices on industrial, commercial, and multi-family residential water lines. As a courtesy, BCDES mails reminders and forms to customers to help them complete the required annual testing.

A \$25.00 administrative fee is charged for each test report returned by the due date. The fee for each late test report is \$60.00.

For more information about containment backflow prevention devices, contact:

Butler County Department of Environmental Services

Mark Smith 887-5573
Nick Noel 887-3917

For information about isolation backflow devices, contact:

Butler County
Health Department
887-5253



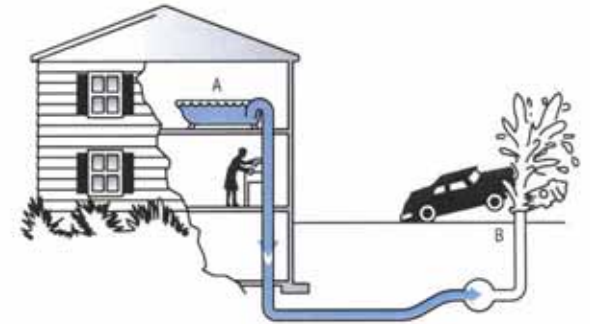
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Board of Commissioners
Gregory V. Jolivette Charles R. Furmon Michael A. Fox

What you need
to know about

BACKFLOW PREVENTION

Butler County Department of
Environmental Services



Keeping the water safe for all of us

What is backflow?

Backflow is any reversal of flow within a piping system. Butler County Department of Environmental Services (BCDES) maintains the high quality of our water until it enters a customer's piping system. After water enters a customer's premises, BCDES 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 and any other substance. A temporary cross-connection could be a hose connected to a faucet, with its other end submerged in the contents of a utility sink, 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 backpressure.

- **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, acid, anti-freeze, or other undesirable substances.

How can backflow be prevented?

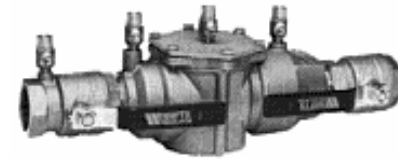
We can prevent backflow by eliminating cross-connections and using backflow prevention devices. Household devices are available for use with hoses. Industrial, commercial, and multi-family applications require devices such as:

- **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?

BCDES requires a reduced pressure backflow prevention assembly to be installed on each water line entering a commercial building, industrial facility, or multi-family residential building of more than three units. Reduced pressure devices must be installed inside a building unless they are protected from cold temperatures and freezing by installation of a hot box. They cannot be installed in pits or below grade level. BCDES also requires fire lines to have double check valve assemblies, which are primary protective devices and are usually located in outside meter/vault pits.