

Do I need a backflow preventer in Florida?



Since 1990, the Florida Building Code has required that **residential irrigation systems have** a backflow preventer per State Statute 62-555-360. The state requires that homeowners have the device tested every two years to prevent contamination of the public drinking water.

See also City Springfield Ordinance number 563 and Resolution number 19-10 which are located under the Government Tab on this website.

Florida Statutes require any person installing or repairing a backflow prevention assembly for a customer be a **state licensed plumbing contractor**. Florida Statutes require any person installing or repairing a backflow prevention assembly on a domestic water system be a state licensed plumbing contractor.

How much does it cost to install a backflow preventer?

Installing or replacing a backflow preventer costs **\$300** for the average homeowner. However, actual project costs fall somewhere between \$135 and \$1,000 based on the system sizes and styles you choose.

Who owns the backflow preventer?

Who is responsible for the backflow preventer? **The customer owns** and is solely responsible to ensure that the device is installed and in satisfactory operating condition at all times.

What is a cross-connection?

A cross-connection is any temporary or permanent connection between a public water system or consumer's potable (i.e., drinking) water system and any source or system containing nonpotable water or other substances. An example is the piping between a public water system or consumer's potable water system and an auxiliary water system, cooling system or irrigation system.

What is backflow?

Backflow is the undesirable reversal of flow of non-potable water or other substances through a cross-connection and into the piping of a public water system or consumer's potable water system. There are two types of back flow - backpressure backflow and back-siphonage.

What is backpressure backflow?

Backpressure backflow is caused by a downstream pressure that is greater than the upstream or supply pressure in a public water system or consumer's potable water system. Backpressure (i.e., downstream pressure that is greater than the potable water supply pressure) can result from an increase in downstream pressure, a reduction in the potable water supply pressure, or a combination of both. Increases in downstream pressure can be created by pumps, temperature increases in boilers, etc. Reductions in potable water supply pressure occur whenever the amount of water being used exceeds the amount of water being supplied, such as during water line flushing, firefighting, or breaks in water mains.

What is back-siphonage?

Back-siphonage is backflow caused by a negative pressure (i.e., a vacuum or partial vacuum) in a public water system or consumer's potable water system. The effect is similar to drinking water through a straw. Back-siphonage can occur when there is a stoppage of water supply due to nearby firefighting, a break in a water main, etc.

Why do water suppliers need to control cross-connections and protect their public water systems against backflow?

Backflow into a public water system can pollute or contaminate the water in that system (i.e., backflow into a public water system can make the water in that system unusable or unsafe to drink), and each water supplier has a responsibility to provide water that is usable and safe to drink under all foreseeable circumstances.

Furthermore, consumers generally have absolute faith that water delivered to them through a public water system is always safe to drink. For these reasons, each water

supplier must take reasonable precautions to protect its public water system against backflow.

What should water suppliers do to control cross-connections and protect their public water systems against backflow?

Water suppliers usually do not have the authority or capability to repeatedly inspect every consumer's premises for cross-connections and backflow protection.

Alternatively, each water supplier should ensure that a proper backflow preventer is installed and maintained at the water service connection to each system or premises that poses a significant hazard to the public water system. Generally, this would include the water service connection to each dedicated fire protection system or irrigation piping system and the water service connection to each of the following types of premises:

1. premises with an auxiliary or reclaimed water system,
2. industrial, medical, laboratory, marine or other facilities where objectionable substances are handled in a way that could cause pollution or contamination of the public water system,
3. premises exempt from the State Plumbing Code and premises where an internal backflow preventer required under the State Plumbing Code is not properly installed or maintained,
4. classified or restricted facilities; and
5. tall buildings.

Each water supplier should also ensure that a proper backflow preventer is installed and maintained at each water loading station owned or operated by the water supplier.

What is a backflow preventer?

A backflow preventer is a means or mechanism to prevent backflow. The basic means of preventing backflow is an air gap, which either eliminates a cross-connection or provides a barrier to backflow. The basic mechanism for preventing backflow is a

mechanical backflow preventer, which provides a physical barrier to backflow. The principal types of mechanical backflow preventer are the reduced-pressure principle assembly, the pressure vacuum breaker assembly, and the double check valve assembly. A secondary type of mechanical backflow preventer is the residential dual check valve.

What is an air gap?

An air gap is a vertical, physical separation between the end of a water supply outlet and the flood-level rim of a receiving vessel. This separation must be at least twice the diameter of the water supply outlet and never less than one inch. An air gap is considered the maximum protection available against backpressure backflow or back-siphonage but is not always practical and can easily be bypassed.

What is a reduced-pressure principle assembly (RP)?

An RP is a mechanical backflow preventer that consists of two independently acting, spring-loaded check valves with a hydraulically operating, mechanically independent, spring-loaded pressure differential relief valve between the check valves and below the first check valve. It includes shutoff valves at each end of the assembly and is equipped with test cocks. An RP is effective against backpressure backflow and back-siphonage and may be used to isolate health or non-health hazards.

What is a pressure vacuum breaker assembly (PVB)?

A PVB is a mechanical backflow preventer that consists of an independently acting, spring-loaded check valve and an independently acting, spring-loaded air inlet valve on the discharge side of the check valve. It includes shutoff valves at each end of the assembly and is equipped with test cocks. A PVB may be used to isolate health or non-health hazards but is effective against back-siphonage only.

What is a double check valve assembly (DC)?

A DC is a mechanical backflow preventer that consists of two independently acting, spring-loaded check valves. It includes shutoff valves at each end of the assembly and

is equipped with test cocks. A DC is effective against backpressure backflow and back-siphonage but should be used to isolate only non-health hazards.

Why do backflow preventers have to be tested periodically?

Mechanical backflow preventers have internal seals, springs and moving parts that are subject to fouling, wear or fatigue. Also, mechanical backflow preventers and air gaps can be bypassed. Therefore, all backflow preventers have to be tested periodically to ensure they are functioning properly. A visual check of air gaps is sufficient, but mechanical backflow preventers have to be tested with properly calibrated gauge equipment.

Where can I get more information about cross-connection control and backflow prevention?

- [The University of Florida TREEO Center](#) maintains a Backflow Prevention and Cross-Connection Control Program Page. In addition to information about training and recertification, you can also find useful information about backflow case histories, find assistance for a cross-connection control program, contact information for organizations involved in water quality, and more.
- One excellent reference manual is the American Water Works Association's (AWWA's) Manual M14, Recommended Practice for Backflow Prevention and Cross-Connection Control, which is available from the [AWWA Bookstore](#); 6666 W. Quincy Ave.; Denver, Colorado 80235; telephone 800-926-7337.

The City of Springfield monitors usage on water meters monthly. Any meters (household or irrigation) that have been turned off and locked that are found with usage on the reports are subject to a tampering fee of \$300.00.