

Lawn Irrigation Systems Need Backflow Prevention

Lawn irrigation systems make watering lawns and gardens easier, save you time, and can be designed to be water efficient. However, water contaminated by weed killers, fertilizers, and animal waste can backflow into your drinking water. To protect your drinking water from potential contamination, it is important to have an approved backflow protection assembly on your irrigation system. Lawn irrigation systems do require special equipment to prevent contaminated water from siphoning back into your home plumbing and city water systems. A lawn irrigation system not protected by an approved backflow prevention assembly endangers the health of a household, neighborhood, and community.

All lawn irrigation systems – new or existing – must be equipped with an Idaho State approved backflow prevention assembly. Only an Idaho State and plumbing code approved backflow prevention assembly properly installed will meet the city plumbing code and provide proper protection for the health of your family and neighbors.

All irrigation systems supplied by the public water system require a plumbing permit prior to installing a backflow assembly.

All backflow prevention assemblies must be tested annually at spring start up for proper operation and protection.

The City of Coeur d'Alene Water Department is responsible for providing safe drinking water to all its customers. To ensure drinking water quality, the Water Department monitors backflow protection on known health hazards to meet Idaho Rule IDAPA 58.01.08. The Water Department strives to make it easy for its customers to keep their drinking water safe and to meet state requirements by allowing options for backflow protection on an irrigation system:

- Types of Backflow Assemblies
 - Double Check Valve
 - Pressure Vacuum Breaker
 - Reduced Pressure Principle
- Types of Backflow Devices
 - Atmospheric Vacuum Breaker

How does backflow happen?

Backflow is water flow in reverse direction from the normal direction of flow in a piping system. This occurs due to different pressures existing between two different points within a piping system; water of a higher pressure flowing to water of lower pressure.

Backflow may occur due to either backsiphonage or backpressure.

Backsiphonage – is caused by negative pressure in the piping system.

- A water line repair or break that is lower than a water service point.
- A lower water main pressure due to a high water usage rate such as in fire fighting or water main flushing.
- Reduced water supply pressure on the suction side of a water booster pump.

Backpressure – occurs when the water supply piping is connected to a piping system or plumbing fixture which exceeds the operating pressure of the water supply piping.

- Booster pumps.
- Water supply line connections to a boiler or other heating systems where thermal expansion is possible.
- Connecting to a water system that operates at a higher pressure.

For more information about backflow prevention assemblies, please call The City of Coeur d'Alene Water Dept. at 769-2210.