

## LAWN IRRIGATION SYSTEMS

Irrigation systems make watering lawns and gardens easier and save time. BUT, water that may be contaminated by weed killers and /or fertilizers can be back-siphoned (backflow) into your drinking water. Irrigation systems not protected by an approved backflow prevention device could endanger the health of a household, neighborhood or community.

## PROTECTING YOUR DRINKING WATER



In 1985 The Valparaiso Department of Water Works put into effect a Backflow Prevention Program. The program follows State of Indiana Code 327 IAC 8-10.

The Backflow Prevention Program requires that all new commercial and industrial water services installed after July 9, 1985 to be protected with an approved backflow device. Some residential domestic water services may require the installation of a backflow prevention device. All land irrigation systems buried below ground and fire sprinkler systems are also required to have a backflow prevention device installed.

All backflow devices must be tested by a State certified Backflow Tester, either annually or semi-annually depending upon type of device.

[A list of approved backflow devices and certified testers may be obtained by contacting the department of water.](#)

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## “WORKING TOGETHER FOR SAFE WATER”



WHAT IS A CROSS CONNECTION?

WHAT IS BACKFLOW ?

Consumers can expect the water provided to them by their water supplier to be pure and healthful. Water suppliers across the country spend millions of dollars to purify and treat water before it reaches the consumer. However, many consumers are not aware that the water supplier also expends great effort to protect the water from possibilities of contamination or pollution while it flows through the distribution system. It is possible for this to occur when a water supply line is connected to equipment containing a non-potable (unsafe to drink) substance. A makeup water line may be connected to a heating boiler that contains chemicals or a hose may drop into a bucket of cleaning solution. These are just a few examples.



These connections are called Cross-Connections, whether they are permanent or temporary, would be dangerous if no protective measures were taken.

Water distribution systems are designed with the intention of water flowing in a certain direction, from the distribution system to the consumer. However, hydraulic conditions within the system may deviate from the “normal” conditions, causing the water to flow in opposite direction in unprotected systems. This is called backflow.

Backflow occurs when the pressure in the distribution system drops, siphoning water from the consumers system back into the community water distribution system. This would also siphon any substance which may be in contact with the water system through a cross-connection. For example, during fire fighting, water “sucked” to the point of high usage, possibly drawing non-potable substances with it.



Some causes of backflow are; water main breaks, fire fighting, high velocities in pipe lines, inter-connection with another system operated at a higher pressure.

Because of the potential dangers to the water consumer, it is necessary to control cross-connections.

There are several types of mechanical devices, which serve as Backflow Preventers. These devices can be installed on water lines to prevent flow reversal. Only backflow prevention devices tested and approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California can be used in the State of Indiana. Approved backflow preventers are extremely dependable.

Valparaiso Department of Water Works has a strong Backflow Prevention Program. Our Department is committed to working with certified testers, plumbers and the consumer in order to provide a high level of protection. The consumer must be aware of cross-connections and prevent them, or protect such connections with the appropriate backflow preventer. A certified tester can survey the consumer's facility for cross-connections, test backflow devices and send test record to the water supplier. Our Department administers the backflow program, maintains test records and informs consumer when testing is due.