



# Keeping Delaware's Drinking Water Safe

**CROSS-CONNECTION CONTROL  
PROGRAM SERVICES**

**BACKFLOW PREVENTION TRAINING**

*Delaware Rural Water Association*





Cross-connections are points within a water system that can allow the flow of potentially dangerous non-potable water into potable drinking water. This is called backflow, and it is caused by two types of pressure changes: backsiphonage and backpressure.

## BACKFLOW

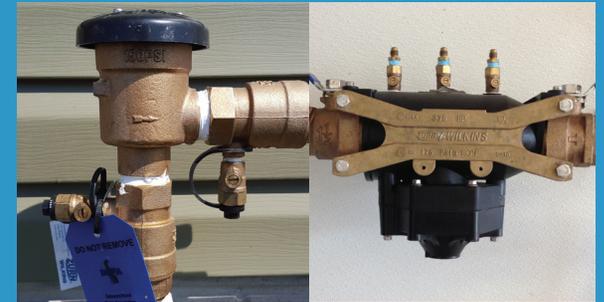
# Compromising Your Potable Water System



**BACKSIPHONAGE** is caused by the negative pressure of a vacuum, or partial vacuum, in the supply piping – just as drinking through a straw draws liquid from a glass. Backsiphonage can be created when there is a stoppage in the water supply pressure due to repairs or breaks in the public water system; an increased demand at one location, such as firefighting; or even undersized piping. Backsiphonage reverses normal flow in the system, and can pull contaminants into the drinking water.



**BACKPRESSURE** occurs when downstream water pressure is greater than the water supply pressure. This can occur in any pressurized system such as boilers, elevated tanks, or recirculating systems.



Both situations act to change the direction of water, which normally flows in one direction – from the water treatment plant/distribution system to the customer. Cross-Connections must be eliminated or properly controlled in all Delaware public water systems.

# Backflow Prevention & Regulatory Compliance

The state of Delaware, through its Division of Public Health, Office of Drinking Water, requires public water suppliers to implement a Cross-Connection Control Program, to help address the risks of backflow. DRWA – The Delaware Rural Water Association – can assist with any and all phases of the implementation process.

# BACKFLOW AND CROSS-CONNECTION CONTROL

Services At A Glance

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## PREVENTION

### PLAN DEVELOPMENT

Includes up to four hours of meetings with program administrators, decision makers, council, etc. as well as public education materials

### PROGRAM MANAGEMENT

DRWA can manage your entire program, from implementation to day-to-day program administration including inspections/surveys, backflow testing monitoring, and overall program reporting

### ORDINANCE

### SURVEYS/INSPECTIONS

### BACKFLOW PREVENTION ASSEMBLY TESTING

### BACKFLOW SOFTWARE

### BACKFLOW TEST GAUGE CALIBRATION

### BACKFLOW TEST GAUGE SALES

### DOCUMENTATION AND REPORTING

### PUBLIC EDUCATION

## TRAINING

### ON SITE

Mobile Hands-On ASSE Training

### FORMAL CLASSROOM TRAINING

ASSE Certification Training

Cross-Connection Control Overview –  
Theory, Ordinance, Plan, Public Education



# DRWA TRAINING CENTER

Our Milford, Delaware Training Center has been created to provide water professionals with an ideal environment for learning a range of critical water system skills. Our training center brings together state and federal agencies, engineers, contractors, and manufacturers, with the equipment and technologies you need for in-depth, hands-on instruction in cross-connection control and many other water-system courses. These sessions allow water professionals to upgrade their skills, improve the quality of their utility's service, and protect their community's health.

**The DRWA Training Center has received recognition and accreditation from the American Society of Sanitary Engineering (ASSE), for Cross Connection Control Certification, ASSE 5000 Standard.**

**These nationally recognized ANSI® accreditation courses include:**

**ASSE 5110**

Backflow Prevention Assembly Tester

**ASSE 5120**

Cross-Connection Control Surveyor

**ASSE 5130**

Backflow Prevention Assembly Repairer

**ASSE 5150**

Backflow Prevention Program Administrator



## ASSE CERTIFICATION

Delaware Plumbing Code/Regulations require all Backflow Prevention Assembly Testers and Repairers to have appropriate ASSE certification. ASSE courses are also approved for CEC's and for Water Operators.

For detailed course information, schedules and fees, please visit **DRWA.ORG**.

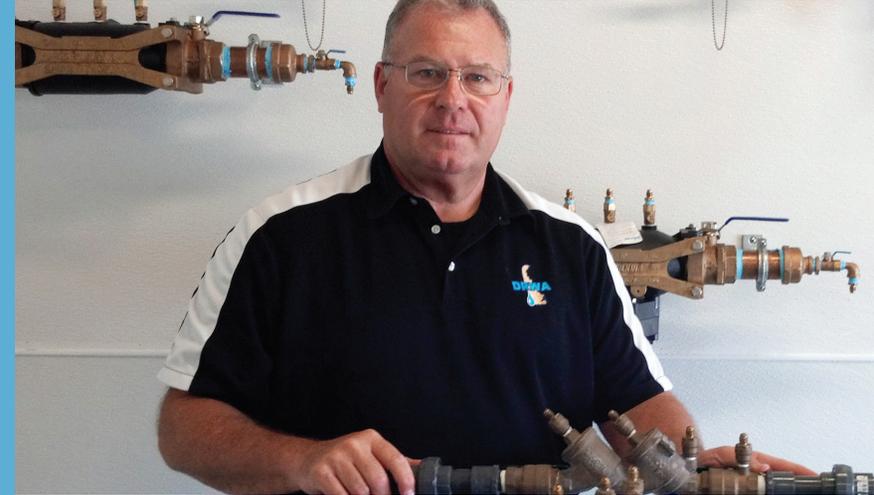




## ABOUT DRWA

The mission of the Delaware Rural Water Association (DRWA) is to improve the quality of utility services for rural Delaware, while protecting our natural resources. DRWA has provided training and technical assistance to municipalities for over 25 years, and is fully equipped to provide Cross-Connection Control Program development and implementation services.

In 2009, DRWA in association with HydroCorp, Inc. set out to promote the importance of preventing contamination/pollution of drinking water systems, through the implementation of cross-connection control programs.



*In Association with*



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