



## **Water Service Application – Residential Customers - Installation of Backflow Prevention Device**

Greenville Water Authority’s mission is to provide its customers with a safe supply of drinking water. To that end, the Authority has adopted a backflow/cross-connection program. In order to protect the water distribution system from actual or potential contamination which could cause a system or health hazard, an approved backflow protection device is required to be installed on every line after the water meter.

Backflow protection **is required on every water service, past the meter** in accordance with Federal and State Drinking Water Act (SDWA) regulations, Occupational Safety and Health Standards (OSHA), and the Pennsylvania Code – Title 25, Chapter 109 (the Commonwealth of Pennsylvania’s official publication of rules and regulations). For most residential customers this requires installation of a **dual check valve**.

Installation of an approved backflow protection device must be installed before water is turned on for newly purchased vacant properties. If you purchase an occupied property you will have 30 days after purchase to comply. Greenville Water Authority strongly recommends that you employ a licensed plumber or contractor that is experienced with backflow devices for installation. The addition of backflow prevention devices to residential-type systems may result in a “closed-loop” system creating abnormally high and potentially dangerous internal pressures. Installation of pressure relief valves or bladder type accumulators may be necessary to eliminate the hazard. An experienced plumber can evaluate your residence.

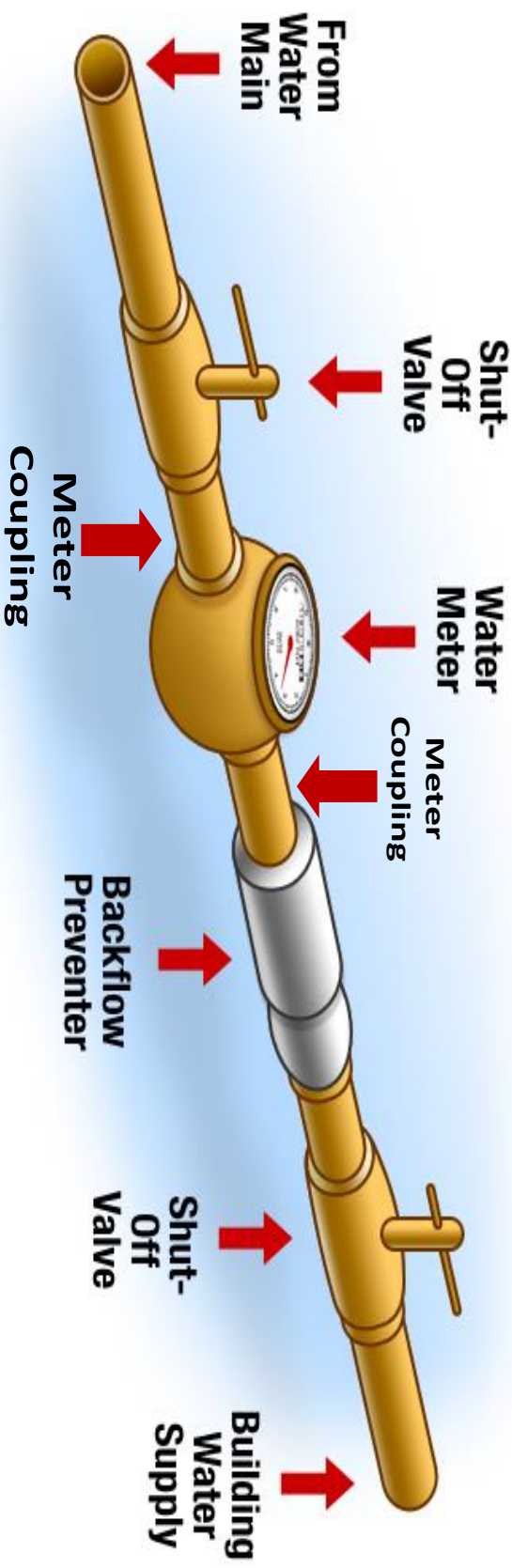
If a dual check valve is not installed within 30 days of purchasing an occupied residence or at the time of calling to schedule an appointment for water service, a \$20.00 service fee will be charged to the owner for the additional site inspection.

Please contact the Greenville Water Authority at 724-588-4340 to schedule an appointment to have the device(s) approved. A copy of the current Rules and Regulations can be picked up at the Authority Office during business hours. The office is open Monday-Friday 8AM to 4:30 PM.

We thank you for helping us maintain a clean and safe water supply.

Greenville Water Authority  
Phone: **724-588-4340**  
Fax: **724-588-7868**

**Backflow preventer to be installed after the water meter. Do NOT install directly to the water meter, a meter coupling must be between the meter and backflow device.**



## **Information on Thermal Expansion**

The addition of backflow prevention devices to residential or residential-type water systems may result in a “closed-loop” system creating abnormally high and potentially dangerous internal pressures. Installation of pressure relief valves or bladder type accumulators may be necessary to eliminate the hazard.

Thermal expansion takes place in water heaters when water is heated. As the water is heated, it expands and increases in volume. Traditionally, the increased volume of water flows back into the supply line and into the public water supply main. With the addition of backflow preventers, check valves and pressure reducing valves on the supply line, a closed loop is formed and the water cannot flow back into the supply line. The volume of water then increases and the resultant pressure increases beyond what the hot water system is designed to handle. The increase in pressure causes the emergency relief valve on the water tank to open and discharge water creating a nuisance and resulting in inefficient operation. Excessive pressure may also rupture pipe fittings and lead to water heater explosion. To eliminate this potential hazard, the owner must install pressure relief valves or accumulators in the plumbing system to relieve pressure.