

Bogue Banks Water Corporation
Cross Connection and Backflow Prevention Policy

*As set forth by the Federal Safe Drinking Water Act, NC Drinking Water Act,
and Section .406 (b) of the NC Rules Governing Public Water Systems*

The purpose of this policy is to advise Bogue Banks Water Corporation customers of safety requirements pertaining to certain identified hazards and to explain how Bogue Banks Water Corporation keeps the water supply safe from backflow of hazards into the distribution system.

As water meters are installed, repaired or upgraded at residences, Bogue Banks Water Corporation ensures that a residential dual check backflow preventer is set with the new meter to protect against backflow from residential plumbing systems back into the Bogue Banks water supply system. Under no circumstances may the dual check valve or any other check valve be removed. Any single, dual, or double check valve found to be removed or missing will be reinstalled at the customer's expense. *

NOTE: All accounts are subject to inspection at any time.

Bogue Banks Water Corporation identify the following as **Moderate Hazards**. All moderate hazards must be protected by an AWWA approved and testable **Double Check Valve Assembly (DCVA)**.

- Fire sprinkler systems without booster pump facilities or chemical additives
- Connection to tanks, lines and vessels that handle non-toxic substances
- Most commercial establishments
- Automatic service stations, bakeries and beauty shops with no health hazard and bottling plants with no back pressure
- Any other items/facilities deemed a moderate hazard by the Board of Bogue Banks Water Corporation

Bogue Banks Water Corporation identify the following as **Severe Hazards**. All severe hazards must be protected by an AWWA approved and testable **Reduced Pressure Zone (RPZ) or by an approved Air Gap**. An air gap is defined as, an unobstructed vertical distance through the atmosphere between the lowest opening from any pipe or faucet supplying water to a tank, plumbing fixture, or other device and the flood level rim of the receptacle. An approved airgap must be a permanent fixture with a vertical separation that shall be at least double the diameter of the supply pipe. In no case shall the airgap be less than one (1) inch.

- Lawn sprinkler systems
- Wastewater treatment plants
- Connection to an unapproved water system or unapproved auxiliary water supply (including wells)
- Connection to tanks, pumps, lines, steam boilers or vessels that handle sewage, lethal substances, toxic or radioactive substances
- Fire sprinkler systems with booster pump facilities (such as fire department connections [FDCs]) or chemical additives
- Buildings with five or more stories above ground level
- Hospitals and other medical facilities
- Morgues, mortuaries and autopsy facilities
- Metal plating facilities
- Bottling plants (subject to backpressure)
- Canneries
- Battery manufacturers
- Exterminators and lawn care companies
- Chemical processing plants

(continued)

- Dairies
- Film laboratories
- Car wash facilities
- Dye works
- Laundries
- Swimming pools and hot tubs
- Waterfront facilities as defined below
- Any other items/facilities deemed a severe hazard by the Board of Bogue Banks Water Corporation

There is no grandfather clause for properties with any of the existing conditions mentioned in this policy. All properties are required to install and maintain the appropriate backflow device as outlined in this policy, including properties that did not have one prior.

Beginning July 1st, 2016, all property owners will be required to abide by this policy. BBWC Inspectors will assess all properties for existing hazards in phases. The timelines for having the correct device installed per notification will be:

- All current homeowners will be given 1 year (365 days) from notification.
- New owners to existing residences will have 90 days from date of application for service.
- New construction homes will have 90 days from the date of application for service.

BBWC reserves the right to re-inspect any property at any time to ensure compliance and/or re-evaluate the level of hazard protection needed. If there is a change from none to moderate, or moderate to severe, the property owner will have 90 days to have the correct device installed.

The following measures will be taken for failure to have the correct device installed within the given timeframe:

- Initial warning and 10 days to comply with installation.
- Second warning, \$100 fine, and 10 days to comply with installation.
- Final warning, \$500 fine, and 10 days to comply with installation.
- Termination of service until the correct device is installed, tested, and fines are paid in full.

BBWC will provide customers with the required lead-free backflow device and insulated cover at a reduced price. These are provided at our cost to purchase and subject to change based on current pricing from our supplier. **All new installations must use the below devices from Watts or Wilkins.** No other brands or model will be allowed. If you have a different brand/model device from a previous installation that was removed, please contact BBWC prior to installation for device approval. Any unapproved devices not matching the brand/model listed below will not be considered a valid installation, will not pass the initial inspection, and will not meet BBWC's requirement for an installed backflow device.

**(RPZ) Reduced Pressure Zone Device – Watts Model LF009M2QT
Wilkins Model 975XL2**

**(DCVA) Double Check Valve Assembly – Watts Model LF007M1QT
Wilkins Model 950XL2**

Bogue Banks Water Corporation highly recommends the installation of a shallow well for use with irrigation systems to help preserve the Castle Hayne Aquifer, our drinking water source, from overuse. All irrigation systems that are connected to the Bogue Banks Water Corporation metered service are required to have a RPZ (Reduced Pressure Zone device) installed. If no other hazards exist on the property, then the RPZ may be installed on the Irrigation line after it branches off from the main house supply line. If the property has additional hazards in addition to the irrigation system, then the RPZ will have to be installed directly after the meter on the main house supply line.

All properties with a pool and/or hot tub will be required to have a RPZ installed directly after the meter except for those filled by a permanent fixture airgap. However, if an automated chemical, salt, backwash, or filtration system is used, then a RPZ will be required even with a permanent fixture airgap. Any permanent fixture airgap must be inspected and approved by a Bogue Banks Water Corporation Inspector yearly.

Waterfront facilities are defined as any property or parcel that borders a permanent source of water (ocean, sound, canal, ponds, etc.) or has water on or contained in property and has a secondary hazard. Secondary hazards include:

- A water source (spigot, etc.) within fifty (50) feet of the property line bordering the ocean.
- A water source (spigot, etc.) within fifty (50) feet of the high tide mark and/or water's edge.

Any property with a secondary source of water (well) will need to be inspected by BBWC personnel. There can be no connection between BBWC's water supply and a private well, this includes swing connections and other types of temporary connections, no matter how many valves are installed. Any property with a private well, deep or shallow, and a permanent, temporary or swing connection to plumbing normally supplied by BBWC water, must have an RPZ installed on BBWC's main supply line directly after the meter.

All installations of cross-connection/backflow prevention devices shall be performed by a licensed plumber or person with an appropriate license. Except for irrigation only installations, the device shall be installed directly after the meter, before any other connections or branches, and within 5 feet of the meter box. If additional room is needed due to driveways, trees, or other obstacles, please contact BBWC **prior** to installation for an exception. Bypasses are not permitted on backflow installations. Irrigation only installations must be out in the open and at least three (3) feet from any shrubbery, vegetation, or natural forest growth. BBWC reserves the right to trim any vegetation within 3 feet of the RPZ. The installation may not be indoors or under porches/decks and must be on the same side of the dwelling as the meter. Please contact BBWC **prior** to installation for site approval. BBWC will provide an installation diagram with required materials list that must be followed for all installations, no exceptions. After installation, it is the customer's responsibility to call BBWC and schedule an initial test on the device. The backflow installation requirements will not be fully complete until after a BBWC tester has both approved the installation and completed an initial passing test on the device.

All Reduced Pressure Zone (RPZ) and Double Check Valve (DCV) assemblies will be tested on a yearly basis by a certified tester from BBWC. **The BBWC tester is the only authorized person to perform the annual test. Any other tests completed by any other entity will be rejected.** A \$40 fee will be charged to the customer's account for the test. If multiple trips are required due to obstruction of the backflow device or the device has been removed, the customer will be charged \$40 each return visit. If the device is in an un-repairable state, there will be no additional charge for a second visit after installation of the new device. If the device is leaking, you will be notified by BBWC and given 30 days to have the device repaired. If the device is not functioning properly, in an un-repairable state, missing, removed, or bypassed, you will be notified by BBWC and given 10 days to have the device replaced. Water service will be discontinued until replaced with a working device based on the schedule below.

- Initial warning and 10 days to comply with installation.
- Second warning, \$100 fine, and 10 days to comply with installation.
- Final warning, \$500 fine, and 10 days to comply with installation.
- Termination of service until the correct device is installed, tested, and fines are paid in full.

Continued tampering or altering the install of a backflow prevention device including bypass installations, device removal, or changing the device in any way that alters its intended use and installation design will result in escalating fines. Second offense and greater offenses will have 10 days to re-install the device properly. After 10 days, the water service will be disconnected and locked until installed and tested by a BBWC inspector. Removal of the meter lock by anyone other than BBWC personnel is considered meter tampering (see complete BBWC policies for meter tampering penalties). Escalating penalties follow the schedule below:

- Second offense – \$500 fine
- Third offense – \$800 fine
- Fourth offense – Disconnection of service and removal of meter

Bogue Banks Water Corporation maintains test records from all backflow prevention assembly tests on properties that contain these severe and moderate hazards.

Per North Carolina Public Water Supply, all water supply systems are also governed by the North Carolina Plumbing Code, which is enforced by city and county inspectors.

It is the responsibility of Bogue Banks Water Corporation customers to prevent pollutants and contaminants from entering their own potable water system. For the Bogue Banks Water Corporation customer, that responsibility starts at the water meter and runs through their entire plumbing system.

Our primary concern is to protect our potable water supply, allowing Bogue Banks Water Corporation to continue to deliver safe drinking water to residents of Salter Path, Indian Beach and Emerald Isle.

Effective July 1, 2016
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