

ORDINANCE AMENDING THE ONSLOW WATER AND SEWER AUTHORITY UTILITY ORDINANCE

WHEREAS, the Board of Directors of the Onslow Water and Sewer Authority

(hereinafter "ONWASA") has previously adopted a Utility Ordinance pursuant to N.C. Gen. Stat. § 162A-6(14c); and

WHEREAS, the Board of Directors of ONWASA has determined that in compliance with State statutes and rules that certain requirements in the current Utility Ordinance may be amended without endangering the water system and the amendments will promote the health, safety, and welfare of the general public; and

WHEREAS, the amendments to the Utility Ordinance will result in a monetary savings to many of the ONWASA customers; and

WHEREAS, a notice of intent to adopt this Ordinance was duly adopted by the Board of Directors in accordance with statute.

NOW, THEREFORE, THE BOARD OF DIRECTORS OF THE ONSLOW WATER AND SEWER AUTHORITY DO TH ORDAIN:

1. Article VI of the Utility Ordinance is hereby amended to read as follows:

ARTICLE VI - Water System Cross-Connection Control (FINAL 03/15/2018)

Section 6.1 - Cross-Connection Control

This article is in accordance with the minimum requirements of the Federal Safe Drinking Water Act, the North Carolina State Department of Environmental Quality (NCDEQ), the North Carolina State Administrative Code Chapter 15A Subchapter 18C, and the North Carolina State Plumbing Code that pertain to cross-connections with public potable water systems. When there are conflicts between these or other applicable local, state, or federal regulations and this Ordinance, the most stringent shall govern.

This article shall apply to all Consumers connected to the Authority's public potable water supply system. There are no exemptions or vested uses that would prohibit the Authority from requiring the installation of backflow prevention assemblies on existing water services when existing or potential cross-connection hazards are found that pose a threat to the public potable water supply system.

Information regarding approved backflow prevention assemblies, installation requirements and a list of cross-connection hazards are on file at the Authority's main office.

Section 6.2 - Purpose and Objectives

The purpose of this Article is to prevent any waterborne disease, organism, pollutant or contaminant from entering the Authority's public potable water system through:

- (a) The installation of approved backflow prevention assemblies whenever new service connections are installed at locations where identified or potential cross-connection hazards will exist.
- (b) The elimination of cross-connections whenever an identified or potential hazard is found to exist as the result of a site survey. Site surveys occur upon request, a change in account holder and/or change in the type of use, or when the plans for modification of water service connections are subject to review and approval by the Authority.

The specific objectives of the Authority's Cross-Connection Control Program are as follows:

- (a) To be compliant with all local, state and federal regulations regarding Backflow Prevention and Cross-Connection Control.
- (b) To systematically eliminate all unprotected cross-connections within the Authority's public potable water system.
- (c) To protect the public potable water system of the Authority against actual or potential contamination, by isolating within each consumer's water system contaminants or pollutants that could, under adverse conditions, backflow through unprotected cross-connections into the public potable water system.
- (d) To provide a continuing monitoring and inspection program that identifies and effectively controls or eliminates actual or potential cross-connections to the public potable water system.

Section 6.3 - Responsibilities

- (a) State of North Carolina - The North Carolina Department of Environmental Quality (NCDEQ), Public Water Supply Section (PWSS) has the responsibility of promulgating and enforcing laws and regulations of all water purveyors in the State of North Carolina in carrying out an effective Cross-Connection Control Program. This includes requiring the implementation of cross-connection control programs for all water purveyors under its jurisdiction.
- (b) ONWASA - Except as otherwise provided herein, the Authority's responsibility is to provide a public water supply as safe as reasonably possible beginning at the source and continuing throughout all of the public water distribution system, including service connections and ending at the point of delivery to the Consumer's potable water system. To provide proper

precautions are taken, the Authority shall endeavor to identify, prevent, and eliminate potential hazards to the public potable water system.

- (c) Consumer - Each Consumer has the primary responsibility for preventing pollutants and contaminants from entering the Consumer's potable water system(s) and subsequently the Authority's public potable water system. The responsibility of each consumer starts at the point of delivery from the public potable water system and includes all of the Consumer's potable water system(s).

- (d) Backflow Prevention Assembly Certified Tester - A backflow prevention assembly certified tester shall be responsible for performing competent inspections of backflow prevention assemblies and making timely, accurate reports of their findings to the Consumer, the Authority and all other responsible regulatory authorities.

Section 6.4 - Right of Entry

Authorized representatives from the Authority shall have the right to enter any building, structure, or premises during normal business hours unless such entry has been denied by the customer, or in the event of denial of entry by the customer, with an administrative search warrant, or at any time in the event of an emergency, to perform any duty imposed by this article. Those duties may include, but not be limited to, sampling and testing of water, as well as inspections and observations of all piping system(s) connected to the public potable water supply system.

Where a Consumer has security measures in force that require proper identification and clearance before entry onto their premises, the Consumer shall make all necessary arrangements with the security personnel so that upon presentation of suitable identification, and such other legal authority as required, Authority employees shall be permitted to enter, without delay, for the purposes of performing their specific duties. Discontinuance of water service may be required, if determined necessary by the Authority, until a backflow prevention assembly appropriate to the level of hazard has been installed.

Upon request by the Authority, the Consumer shall furnish the Authority any pertinent information regarding the water supply system on such property where backflow protection is deemed necessary.

Section 6.5 – Prevention and Elimination of Cross-Connections

When it is determined that a potential cross-connection hazard exists and installation of a backflow prevention assembly is required for the protection of the public potable water supply system, the Authority shall require the Consumer, at their own expense, to have an approved backflow prevention assembly installed at each service connection and to have it tested in accordance with the requirements of this Article.

When an actual cross-connection is found to exist, the Consumer shall be notified in writing to disconnect the same and install an approved backflow prevention assembly within a time limit established by the Authority. The degree of protection required and maximum time allowed for compliance shall be based upon the potential degree of hazard to the public potable water system:

- (a) Unprotected cross-connections with private wells or other public/private water supplies shall result in immediate disconnection of Authority water service. Service shall not be restored until the cross-connection is eliminated or a backflow prevention assembly meeting the requirements of Section 6.9 is installed.
- (b) All facilities that pose a potential health hazard to the potable water system shall have an approved reduced pressure principle assembly (RP) installed within sixty (60) days of notification to do so.
- (c) All newly constructed industrial and commercial facilities required to install a backflow prevention assembly shall install the appropriate assembly (as specified in Section 6.9) prior to the release of meters to initiate water service.

All existing backflow assemblies that are not installed in compliance with the requirements set forth by this Article, whether discovered during a site survey or upon failure to pass an annual test (See Section 6.8), shall be brought into compliance upon notification from the Authority within the timeframes specified above, based upon the potential degree of hazard to the public potable water system.

Section 6.6 - Approved Backflow Prevention Assemblies

The following requirements shall apply to all backflow prevention assemblies installed on Consumer potable water systems connected to the Authority's public potable water supply system:

- (a) Backflow prevention assemblies shall be included on the "List of Approved Backflow Prevention Devices" published by the University of Southern California (USC), shall meet American Society of Sanitary Engineers (ASSE) standards and carry the ASSE seal.
- (b) The Authority reserves the right to reject the installation of any reduced pressure principle assembly (RP) or double check valve assembly (DCVA) on the list referenced in Item (a) if it is determined by the Authority that the assembly will not provide sufficient cross-connection protection at that location.

Section 6.7 - Installation of Backflow Prevention Assemblies

Installation of backflow prevention assemblies shall be performed by a North Carolina Licensed Plumber in accordance with the requirements set forth by this Article, the Authority's *Manual of Standards, Specifications and Details (MSSD)* - current edition, the manufacturer's

installation instructions and/or in the latest edition of the North Carolina Plumbing Code, whichever is most stringent.

ALL BACKFLOW PREVENTION ASSEMBLY INSTALLATIONS SHALL BE INSPECTED AND APPROVED BY THE AUTHORITY PRIOR TO INITIAL CONNECTION TO THE PUBLIC POTABLE WATER SYSTEM.

Section 6.8 - Testing and Repair of Assemblies

The testing and repair of backflow prevention assemblies shall be performed in accordance with the following:

- (a) Testing shall be performed by a Backflow Prevention Assembly Certified Tester (Certified Tester) holding a current certificate of completion from a North Carolina AWWA-WEA approved training program in Backflow Cross-Connection Prevention. Proof of current certification shall be provided by the Certified Tester to the Authority and must be on file with the Authority prior to the submittal of any test reports.
- (b) Testing of backflow prevention assemblies shall utilize all tools, gauges, manometers and other equipment designed for that purpose and necessary to properly perform the testing. All test equipment shall be checked for accuracy annually and calibrated via methods specified by the manufacturer of the testing equipment. Proof of certification of accuracy and calibration to National Institute of Standards and Technology (NIST) requirements shall be provided by the Certified Tester to the Authority annually and upon request.
- (c) Failure of a Certified Tester to submit the complete and accurate documentation required under items (a) and (b) prior to the submittal of test reports shall result in the rejection of those test reports by the Authority.
- (d) Tests are to be conducted upon initial installation of the backflow prevention assembly and annually (every 365 days) thereafter, or at a frequency established by the Authority's regulations. A record of all test results shall be prepared by the Certified Tester in a format specified by the Authority and copies shall be provided to the Authority within ten (10) business days after the completion of any testing or the activation of water service.
- (e) The Certified Tester shall notify the Authority within one (1) business day any time that repairs to backflow prevention assemblies are deemed necessary. These repairs shall be completed by a North Carolina Licensed Plumber within ten (10) business days after a failed test, and a report submitted to the Authority once repairs are completed.
- (f) In the event the Consumer fails to comply with the testing requirements established under this Article, the Authority shall implement the penalties referenced in Section 6.12. This includes performing the required testing and charging the associated cost to the Consumer.

- (g) The Authority may conduct random testing of individual backflow prevention assemblies to verify proper operation. The Consumer shall be given notice prior to the test date.
- (h) All current and/or future Air Gap installations (including new construction) shall be inspected at a frequency determined by the Authority to ensure the safety of the public potable water system.

THE SUBMISSION OF ANY RECORD TO THE AUTHORITY BY ANY CONSUMER OR CERTIFIED TESTER THAT IS FALSE OR INCOMPLETE, AS WELL AS FAILURE TO SUBMIT ANY RECORD REQUIRED BY THIS ORDINANCE, IS PROHIBITED.

Section 6.9 - Facilities Requiring Backflow Protection Assemblies

In accordance with the guidance provided within NCAC Chapter 15A, Subchapter 18C Appendix B, the types of facilities or services listed in this section have been identified by the Authority as having a potential for backflow of non-potable water into the public water supply system. An approved backflow prevention assembly shall be required on all such services, according to the degree of hazard present.

For the purposes of this Article, waterfront facilities shall be defined as any structure which has an exterior potable water fixture located within fifty (50) feet of the high tide mark and/or water's edge of any permanent source of non-potable water (i.e. ocean, sound, canal, river, stream, or pond).

Residential Customers

- (a) All residential waterfront facilities require the installation of an RP Assembly.
- (b) All residential properties with a swimming pool directly plumbed to the public potable water system require the installation of an RP Assembly or an Air Gap meeting the requirements of the NC Plumbing Code and approved by the Authority.
- (c) All residential properties with an irrigation system directly plumbed to the public potable water system require the installation of an RP Assembly on the service line connected to the irrigation system.

Commercial Customers

- (d) Commercial facilities that have identified pressure and/or chemical hazards associated with their activities require the installation of an RP Assembly.
- (e) Structures designed for flexible commercial uses (i.e. strip malls/generic retail space) require the installation of an RP Assembly on the service line to each unit in the development.

- (f) All commercial waterfront facilities require the installation of an RP Assembly.
- (g) Commercial facilities with no identified health hazard are required, at a minimum, to install a Double Check Valve Assembly (DCVA) on their public potable water system service unless all of the following criteria are met and they are therefore exempt from this requirement:
 1. The facility contains no moderate or severe hazards, which can be verified by ONWASA personnel who are trained and authorized to inspect the facility for compliance with this Section.
 2. The facility is not designed for flexible or generic retail use, or is under the direct control of the property owner.
 3. The facility utilizes only residential-type plumbing fixtures (i.e. toilets, hand sinks and showers) for employee and/or customer use.
 4. The facility does not include or provide for the bulk storage of lethal, hazardous or toxic materials.

The Authority shall prepare and maintain a list of commercial facility categories, the level of hazard associated with those facilities, and the type of backflow prevention assembly required to comply with this Article.

Other types of facilities or services not listed above may be required to install approved backflow prevention assemblies, based on the potential level of hazard, when deemed necessary by the Authority. When a site survey is conducted at existing facilities and a cross-connection is found or known to exist, or when it is necessary to repair an existing backflow assembly that is not in conformance with this Article, the hazard designation of the facility may be revised and require the installation of the appropriate backflow prevention assembly.

No person shall fill tanks, containers, buckets, etc. containing pesticides, fertilizers, or other toxins (or their residues) from the public water system except at a location equipped with an approved Air Gap or a Reduced Pressure Principle (RP) Assembly properly installed and fully operational.

Section 6.10 - Connections with Alternative Sources of Supply

No person shall connect or cause to be connected to the Authority's public potable water system any alternative supply of water not currently permitted by the State of North Carolina, Department of Environmental Quality. Any connections to permitted alternative sources of supply that are allowed by the Authority shall comply with the backflow prevention requirements of this Article.

Water mains served by the Authority but not maintained by the Authority are considered cross-connection hazards, and the required type of backflow prevention assembly shall be based upon the degree of hazard as determined by the Authority. In the event that an Authority employee does not have sufficient access to every portion of a private water system to completely evaluate the

degree of hazard, an approved Reduced Pressure Principle (RP) Assembly shall be required as a minimum for protection.

In the event of contamination or pollution of the alternative source of supply, the Consumer shall notify the Authority immediately in order to ensure that appropriate measures are taken to overcome and eliminate the contamination or pollution.

Section 6.11 - Fire Protection Systems

All existing backflow assemblies installed on fire protection systems in operation at the time these regulations are approved shall be allowed to remain on the premises as long as they are being properly maintained, tested and repaired as required. If the existing assembly must be replaced, or in the event of proven water theft through an un-metered service, the Consumer shall be required to install an approved Reduced Pressure Principle Detector Assembly (RPDA) or an RP Assembly and water meter (as determined by supply line size). All backflow preventers for fire protection shall also meet the requirements of any applicable building and fire codes.

Section 6.12 - Notices of Violation

The Consumer and/or Owner of any installation found to be in violation of the provisions of this Ordinance shall receive a written explanation of the violation, the actions to be taken, and the time period within which the violation must be corrected. This notice shall be served by personal delivery, a designated delivery service authorized pursuant to 26 U.S.C. § 7502(f)(2), or certified mail to the Consumer and/or Owner. Should the Authority be unable to serve the Consumer and/or Owner by the aforementioned methods, then service shall be effectuated by First-Class mail together with posting the notice of violation on the subject property.

Failure by the Consumer and/or Owner to correct the violation within the time specified may result in civil penalties or fines, as outlined in Article XII of this ordinance. Failure to pay any civil penalty or assessed fine shall be just grounds for termination of the Authority's water service. Service shall be re-established when the violation is corrected and applicable civil penalties and other required fees are paid.

(END OF SECTION)

BACKFLOW PREVENTION ASSEMBLY REQUIREMENTS FOR COMMERCIAL FACILITIES

(Adapted from NCAC Chapter 15A, Subchapter 18C, Appendix B)

- Key:** DCVA - Double Check Valve Assembly
 RP - Reduced Pressure Principle Assembly
 RPDA - Reduced Pressure Principle Detector Assembly

MODERATE HAZARDS	
1. Auxiliary water systems: permitted public water supply	DCVA
2. Buildings - Hotels, apartment houses, public and private office buildings, or other structures having unprotected cross-connections: under 5 stories with no identified health hazard	DCVA
3. Commercial establishments with no identified health hazard, unless exempted under the requirements of Article VI, Section 6.9(i)	DCVA
4. Industrial facilities with no identified health hazard	DCVA
5. Mobile home parks (master metered) with no identified health hazard	DCVA
SEVERE HAZARDS	
1. Automotive service stations, dealerships and assembly plants	RP
2. Auxiliary water systems: non-permitted public/private water supply	RP
3. Bakeries with an identified health hazard	RP
4. Beauty/barber shops with an identified health hazard	RP
5. Beverage bottling plants and breweries	RP
6. Buildings - hotels, apartment houses, public and private office buildings, or other structures having unprotected cross-connections:	
6A. Buildings under five (5) stories with identified health hazards	RP
6B. Buildings over five (5) stories regardless of health hazard	RP
6C. All buildings with booster pump facilities	RP
7. Canneries/packing houses/rendering plants	RP
8. Chemical processing plants and storage/distribution facilities	RP
9. Commercial car wash facilities	RP
10. Commercial greenhouses and farms	RP
11. Concrete and asphalt plants	RP
12. Dairies and cold storage facilities	RP
13. Fire suppression systems: 3/4 to 2 inch supply lines (with separate meter)	RP
14. Fire suppression systems: 2-1/2 to 10 inch supply lines	RPDA
15. Flexible/generic retail or commercial space	RP
16. Hospitals, medical buildings, sanitariums, morgues, mortuaries, autopsy facilities, nursing and convalescent homes, medical clinics, and veterinary hospitals	RP
17. Laundry and dry cleaning facilities	RP
18. Lawn irrigation systems	RP

CONTINUED ON OTHER SIDE

CONTINUED FROM OTHER SIDE

SEVERE HAZARDS

19. Metal manufacturing, cleaning, processing, and plating plants	RP
20. Mobile home parks (master metered) with an identified health hazard	RP
21. Oil and gas production, storage, transmission and distribution facilities	RP
22. Pest control facilities	RP
23. Power generation facilities	RP
24. Facilities with radioactive materials present on site	RP
25. Restaurants with an identified health hazard	RP
26. Restricted, classified, or other limited access facilities	RP
27. Sand and gravel plants	RP
28. Schools, daycare facilities, colleges, and learning institutions	RP
29. Sewage collection, treatment and storm drainage facilities	RP
30. Swimming pools	RP
31. Tattoo parlors	RP
32. Waterfront facilities and ancillary waterfront structures	RP
33. Any commercial / Industrial facilities not listed above, with an identified health hazard	RP

2. Section 6.9 (a) of Article VI shall become effective as to existing structures on March 15, 2020. The rest and remainder of the ordinance shall be effective upon adoption.

3. Should any portion of this Ordinance be determined to be ultra vires, illegal, or unconstitutional, the rest and remainder of this Ordinance shall remain in full force and effect.

This the 15th of March, 2018



Attest:

Heather W. Norris

Heather Norris, Clerk

Gregory R. Hines

Gregory Hines, Chairman