DIVISION 4. - WATER SYSTEM POLICY FOR CROSS-CONNECTION, BACKFLOW, AND BACK-SIPHONAGE CONTROL

Sec. 10-111. - Intent, purpose, and control.

(a) The authority for the following backflow and cross connection rules are found in the Federal Safe Drinking Water Act of 1974, and the NCAC title 15A, environment and natural resources, chapter 18, environmental health.

(b) It is the intent of this section to recognize that there are varying degrees of hazard to potable water within the water main and water supply systems.

(c) The purpose of this section is:

(1) To protect the public potable water supply of the City of Reidsville against actual or potential cross-connections, backflow, and back siphonage by isolating within the premises or private property contamination or pollution that has occurred, or may occur, because of some undiscovered or unauthorized cross-connection on the premises or private property;

(2) To eliminate cross-connections, backflow, and back-siphonage or any other source of water or process water used for any purpose whatsoever which may jeopardize the safety of the public potable water supply of the city.

(3) To establish a cross-connection, backflow, or siphonage control program.

(4) Cross-connections, backflow, and back siphonage control require cooperation between the city and the consumer. The responsibilities and duties of each shall be as set forth in this section and other applicable regulations.

(Ord. of 5-12-09)

Sec. 10-112. - Responsibilities; enforcement.

(a) It is acknowledged that the cooperation of both water provider and water consumer is necessary to implement and maintain a backflow and cross connection prevention program. As such, both the city and the consumer shall joint responsibility for the prevention of contamination of the public water supply system as defined below.

(b) The director of public works shall be responsible for the protection of the public water distribution system from contamination or pollution due to the backflow or back siphonage of contaminates or pollutants through the water service connection. Such responsibility begins at the point of origin of the public water supply and includes all of the public water supply and all of the public water distribution system and ends at the service connection to the consumer's water system. In addition, the director shall

exercise reasonable vigilance to insure that the consumer has taken the proper steps to protect the public potable water system. When it is determined that a backflow prevention device is required for the protection of the public system of the city, the director shall require the consumer, at the consumer's expense, to install an approved backflow prevention device on each service connection. A backflow prevention device is required on all new non-residential service connections and any existing service connection where a plumbing permit is issued for improvements.

(c) The director may utilize public health officials, city personnel, or their delegated representatives to assist him in this responsibility.

(d) The consumer has the prime responsibility of preventing contaminants and pollutants from entering the potable water system or the public water system at his service connection. The consumer, at his own expense, shall install, operate, and maintain an approved backflow prevention device on the service connection as directed by the city. Tests, maintenance, and repairs of backflow prevention devices shall be made by a city approved certified tester.

(e) If, in the judgment of the director, cross connection protection is required through either piping modifications or installation of an approved backflow prevention device, due notice shall be given to the consumer. The consumer shall immediately comply by providing the required protection at their own expense. Failure, refusal, or inability to comply shall constitute grounds for discontinuance of water service until such protection has been provided.

(f) Upon determination that a backflow prevention assembly is required to be installed on a customer's private water system, the customer will be notified in writing of the approved backflow prevention assembly which is required. On existing systems, the customer will have the following time periods within which to install the specified backflow prevention assembly.

Air-gap separation for swimming pools	60 days
Reduced pressure principle assembly for non-residential water connection	60 days
Double check valve assembly for residential irrigation connection	60 days

(g) The director may require the installation of the required backflow prevention assembly immediately or within a shorter time period than specified above if he determines that any condition poses an unreasonable threat of contamination to the public water supply system. All devices required for new construction shall be installed prior to occupancy. All new construction plans and specifications shall be made available to the director for approval and to determine the degree of hazard.

(h) The director shall be notified by the customer when the nature of the use of property changes so as to change the hazard classification of the property if necessary.

(i) Enforcement of this section shall be administered by the director utilizing the staff of the public works and community development departments and the cooperation of the environmental health division of the county health department.

(Ord. of 5-12-09)

Sec. 10-113. - Regulations.

(a) The city shall implement a permit system for the management of backflow prevention devices within

the system.

(1) The city shall not knowingly permit a cross-connection within the public water system.

(2) Cross connection permits shall be required for each backflow prevention device and shall be obtained from the community development department. For non-residential connections, a fee of one hundred dollars ($100.00) shall be obtained for each initial permit and a fee of fifty dollars ($50.00) for each renewal permit.

(3) All non-residential permits shall be renewed annually.

(b) No water service connections other than single family residence shall be installed or maintained unless the potable water and water supply are protected against actual or potential contamination or pollution in the manner required. Where a residential connection to a city waterline is made, and the property owner continues to have a well or other source of water, it shall be unlawful for the plumbing servicing any building upon such property to be so connected that any water outlet within the building may be served with water from any source other than the city connection, and it shall also be unlawful to have plumbing cross-connected or so installed that water from the city water system or private water system may in any way become intermingled.

(c) In the event of contamination or pollution of a potable water system, the consumer shall notify the department immediately in order that appropriate measures may be taken to overcome the contamination or pollution.

(d) The director or his authorized representative shall have the right to enter any building, structure, or premises to perform any duty imposed upon him by this section where cross-connection, backflow, and back-siphonage are deemed possible.

(e) Nothing herein shall relieve the consumer of the responsibility for conducting or causing to be conducted periodic surveys of water use practices on his premises to determine whether there are actual or potential cross-connections in the consumer's waste system through which contaminates or pollutants could flow back into the public water system.

(f) On request, the consumer shall furnish to the department any pertinent information regarding the water supply system on such property where cross-connection, backflow, and back-siphonage are deemed possible.

(g) Water service may be discontinued after reasonable notice to the consumer if a violation of this section exists on the premises, and such other precautionary measures may be taken as are deemed necessary to eliminate any danger to the potable water system. Water service shall not be restored until the danger has been eliminated in compliance with the provisions of this section.

(h) Installation of all cross-connection, backflow, and back-siphonage control devices will be approved by city specification.

(i) All cross-connection, backflow, and back-siphonage control devices shall meet the testing requirements of the Foundation for Cross-Connection Control and Hydraulic Research and the American Water Works Association.

(j) All cross-connection, backflow, and back-siphonage control devices, both existing and new, and all parts thereof shall be maintained in a safe condition and in good working order. The consumer shall be

responsible for the maintenance of all backflow prevention devices downstream from the service connection on the private water system. All non-residential backflow prevention devices located at the service connection shall be tested at least one (1) time per year, with the exception of residential irrigation backflow preventers which shall be tested at least one (1) time every two (2) years, or more often in those instances where inspections indicate a need, by a city approved certified tester. All maintenance and repairs shall be made at the expense of the consumer.

(k) Any existing backflow preventer shall be allowed by the city to continue in service unless the degree of hazard is such as to supersede the effectiveness of the present backflow preventer. In such case, the backflow preventer shall be upgraded accordingly.

(l) Periodic testing of all reduced pressure backflow devices shall be conducted at least annually.

(1) Test information as required by the city shall be submitted on forms approved by the city. If test results are not submitted, a notice will be sent notifying customer that they are in non-compliance. If necessary tests and/or repairs are not completed by the date specified on notice, the water service may be terminated.

(2) Testing shall be done at the owner's expense.

(3) Any backflow preventer that fails during a periodic test shall be repaired or replaced. High hazard situations will not be permitted to continue operate if the repair cannot be completed immediately. Other failures shall be corrected within thirty (30) days after the test date and shall be retested to assure compliance.

(m) If multiple consumers are served by one (1) service connection or the service connection cannot be interrupted for testing and/or repairs; a tandem backflow assembly or a bypass with equal backflow protection will be required.

(n) All backflow preventers must be installed in a horizontal position, except those vertical fire line double check backflow preventers approved for installation by the city.

(o) An approved backflow prevention device shall be installed, maintained, and tested at a location to protect the city's potable water system from the consumer's water system, whenever any of the conditions specified in this section of the policy are present. In all cases, this location shall be between the city's potable water system and the first branch connection or use of the consumer's water system. Unless an exception is granted by the director or his designee, the backflow prevention device shall be located at the consumer's property line.

(p) RPZ-type Backflow devices shall be located above ground inside of an insulated, protective "hot box" in order to prevent freezing. It is recommended that a 120V convenience outlet be located in close proximity to the box in order to facilitate testing. DCVA-type backflow prevention devices shall be located in ground inside a protective box behind the residential irrigation meter.

(Ord. of 5-12-09)

Sec. 10-114. - Required protection.

Only RPZ-type backflow prevention devices shall be approved for connection to the city's public water supply system for non-residential connections and DCVA- type backflow prevention devices shall be approved for connection to the city’s public water supply system for residential irrigation connections.