ORDINANCE 11-2986

AN ORDINANCE AMENDING CHAPTER 118 "UTILITIES," ARTICLE VI "CROSS CONNECTION CONTROL PROGRAM" OF THE CITY OF BEDFORD CODE OF ORDINANCES, AS AMENDED IN ITS ENTIRETY BY THE ADOPTION OF THE REVISED CROSS CONNECTION CONTROL PROGRAM.

WHEREAS, it is the responsibility of the City to protect the public potable water supply of the City from the possibility of contamination or pollution by isolating within the customer's internal distribution system(s) or the customer's private water system(s) such contaminants or pollutants that could backflow into the public water system; and,

WHEREAS, it is the responsibility of the City to promote the elimination or control of existing cross connections, actual or potential, between the customer's in-plant potable water system(s) and nonpotable water systems, plumbing fixtures, and industrial piping systems in conjunction with the current adopted Plumbing Code; and,

WHEREAS, it is the responsibility of the City to provide for the maintenance of a continuing program of cross connection control that will systematically and effectively prevent the contamination or pollution of any City potable water by requiring the certification and operational testing of all testable backflow prevention assemblies located on a premises and requiring the installation of approved backflow prevention assemblies; and,

WHEREAS, the City is required to comply with the Texas Commission on Environmental Quality Rules and Regulations for Public Water Systems (30 TAC §§ 290.38 through 290.49).

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF BEDFORD, TEXAS:

SECTION 1. **That all matters stated herein above are found to be true and correct and are incorporated herein by reference.**

SECTION 2. **That Chapter 118 "Utilities" of the City of Bedford Code of Ordinances, as amended in its entirety by the adoption of the revised "Cross Connection Control Program," read as follows:**

Sec. 118-181. Cross-connection standards.

Every source of contamination or possible contamination from any contaminant which originates from, or is located at a residential or commercial establishment, which is connected to any public water supply or which provides water to the public, shall be equipped with the protection required under the provisions of this article.

Sec. 118-182. Definitions.

For the purpose of this article, the following definitions apply unless the context clearly indicates or requires a different meaning. If a word or term used in this article is not contained in the following list, its definition or other technical terms used, shall have the meanings or definitions listed in the most recent adopted edition of the City Plumbing Code and/or the Manual of Cross Connection Control published by the Foundation for Cross Connection Control and Hydraulic Research, University of Southern California. The following definitions shall apply to this article:

Air gap **shall mean a physical separation between the free flowing discharge end of a potable water supply piping and/or appurtenance and an open or nonpressure receiving vessel, plumbing fixture or other device. An "approved air-gap separation" shall be at least twice the diameter of the**

supply pipe measured vertically above the overflow rim of the vessel, plumbing fixture or other device and in no case, less than one inch.

Atmospheric vacuum breaker backflow prevention device or atmospheric vacuum breaker or AVB **shall mean a device used to prevent backsiphonage in non-health hazard conditions. This device cannot be tested and cannot prevent backpressure backflow.**

Auxiliary supply **shall mean any water source or system other than the public water system that may be available in the building or on the property, including ground water or surface waters used for industrial, irrigation or any other purpose.**

Backflow prevention assembly or assembly **shall mean an assembly to counteract back pressure or prevent backsiphonage.**

Backflow **shall mean the flow in the direction opposite to the normal flow or the introduction of any foreign liquids, gases, or substances into the water system of the City's water.**

Backpressure **shall mean any elevation of pressure in the downstream piping system (by any means) above the supply pressure at the point of consideration which would cause, or tend to cause, a reversal of the normal direction of flow and the introduction of fluids, mixtures or substances from any source other than the intended source.**

Backsiphonage **shall mean the flow of water or other liquids, mixture or substances into the distribution pipes of a potable water supply system from any source other than its intended source, caused by a sudden reduction of pressure in the potable water supply system.**

Boresight or Boresight to daylight **shall mean providing adequate drainage for backflow prevention assemblies installed in vaults through the use of an unobstructed drain pipe.**

City or the City **shall mean the City of Bedford or its' representative.**

Commercial establishment **shall mean property or location which is used primarily for manufacture, production, storage, wholesaling or retailing of services which is or may be placed in the flow of commerce, or any property or location which is used primarily for the provision of any service.**

Commission **shall mean the Texas Commission on Environmental Quality (TCEQ).**

Contaminants **shall mean any foreign material, solid or liquid, not common to the potable water supply which makes the water unfit or undesirable for human or animal consumption.**

Contamination **means the admission of contaminants into the potable water supply system.**

Cross-connection **shall mean any connection, physical or otherwise, between a potable water supply system and any plumbing fixture or any tank, receptacle, equipment or device, through which it is possible for any nonpotable, used, unclean, polluted and contaminated water, or other substances, to enter into any part of such potable water system under any condition or set of conditions.**

Cross-connection control device **shall mean any nationally approved or recognized device placed upon any connection, physical or otherwise, between a potable water supply system and any plumbing fixture or any tank, receptacle, equipment or device, which is designed to prevent nonpotable, used, unclean, polluted and contaminated water, or other substances, from entering into any part of such potable water system under any condition or set of conditions.**

Customer service inspection **shall mean an inspection designed to inspect and detect any actual or potential cross-connection hazards and/or the lead action level in solder or flux, pipe or pipe fittings exceeds acceptable State levels.**

Degree of hazard **shall mean the low or high hazard classification that shall be attached to all actual or potential cross-connections.**

(1) ***Health hazard*** **means an actual or potential threat of contamination of a physical or toxic nature to the public potable water system or the consumer's potable water system that would be a danger to health.**

(2) ***High hazard*** **means the classification assigned to an actual or potential cross-connection that potentially could allow a substance that may cause illness or death, to backflow into the potable water supply.**

(3) ***Low hazard*** **means the classification assigned to an actual or potential cross-connection that potentially could allow a substance that may be objectionable, but not hazardous to one's health, to backflow into the potable water supply.**

(4) ***Pollution hazard*** **means an actual or potential threat to the physical properties of the water system, or the potability of the public or the consumer's potable water system, but which would not constitute a health or system hazard, as defined. Maximum degree of intensity of pollution which the potable water system could be degraded under this definition would cause a nuisance or be aesthetically objectionable, or could cause damage to the system or its appurtenances.**

(5) ***System hazard*** **means an actual or potential threat of severe danger to the physical properties of the public or consumer's potable water supply, or of a pollution or contamination that would have a detrimental effect on the quality of the potable water in the system.**

Director **shall mean the Public Works Director or their designee who is vested with the authority and responsibility for the implementation of an effective cross-connection control program and for the enforcement of the provisions of this article.**

Double check detector backflow prevention assembly or double check detector or DCDA **shall mean an assembly composed of a line-size approved double check assembly with a bypass containing a specific water meter and an approved double check valve assembly. The meter shall register accurately for very low rates of flow.**

Double check valve backflow prevention assembly or double check assembly or double check or DC **shall mean an assembly which consists of two independently acting, approved check valves, including tightly closing resilient seated shutoff valves attached at each end of the assembly and fitted with properly located resilient seated test cocks.**

Fire line tester **shall mean a tester who is employed by a state approved fire line contractor and is qualified to test backflow prevention assemblies on fire lines only.**

General tester **shall mean a tester who is qualified to test backflow prevention assemblies on any domestic, commercial, industrial or irrigation service; except fire lines.**

Mobile unit **shall mean any operation which may have the potential to introduce contaminants into a potable water system from a mobile source. These include, but are not limited to: carpet cleaning vehicles, water-hauling vehicles, street-cleaning vehicles, liquid-waste vehicles, power-wash operations, and pest-control vehicles.**

Nonresidential use **shall mean water used by any person other than a residential customer of the water supply, and include all uses not specifically included in "residential uses".**

Person **shall mean any individual, partnership, associations, corporations, firms, clubs, trustees, receivers, and bodies politic or corporate.**

Point-of-use isolation **shall mean the appropriate backflow prevention within the consumers water system at the point at which the actual or potential cross-connection exists.**

Potable water supply **shall mean any water supply intended or used for human consumption or other domestic use.**

Premises **shall mean any piece of property to which water is provided; including all improvements, mobile structures, and structures located on it.**

Premises isolation **shall mean the appropriate backflow prevention at the service connection between the public water system and the water user.**

Pressure vacuum breaker backflow prevention assembly or pressure vacuum breaker or PVB **shall mean an assembly which provides protection against backsiphonage, but does not provide adequate protection against backpressure backflow. The assembly is a combination of a single check valve with an AVB, and can be used with downstream resilient seated shutoff valves. In addition, the assembly has suction and discharge gate valves and resilient seated test cocks which allow the full testing of the assembly.**

Public water system or system **shall mean any public or privately owned water system which supplies water for public domestic use. The system will include all services, reservoirs, facilities, and any equipment used in the process of producing, treating, storing, or conveying water for public consumption.**

Reduced pressure principle backflow prevention assembly or reduced pressure principle assembly or RP assembly or RP **shall mean an assembly containing two independently acting approved check valves together with a hydraulically-operated, mechanically independent pressure differential relief valve located between the check valves, and at the same time below the first check valve. The assembly shall include properly located resilient seated test cocks and tightly closing resilient seated shutoff valves at each end of the assembly.**

Reduced pressure principle detector backflow prevention assembly or reduced pressure detector or RPDA **shall mean an assembly composed of a line-size approved reduced pressure principle assembly with a bypass containing a specific water meter and an approved reduced pressure principle backflow prevention assembly. The meter shall register accurately for very low rates of flow.**

Regulatory authority **shall mean any municipal officer or department of the City, appointed by the City manager to administer this article.**

Representative of the water system **shall mean a person designated by the City to perform cross-connection control duties that shall include, but are not limited to, cross-connection inspections and water use surveys.**

Residential use **shall mean water used by any residential customer of the water supply and include single family dwellings, duplexes, multiplexes, housing and apartments where the individual units are each on a separate meter; or, in cases where two or more units are served by one meter, the units are full-time dwellings.**

Service connection **shall mean the point of delivery which the water purveyor loses control of the water.**

Spill-resistant pressure vacuum breaker or SVB **shall mean an assembly containing an independently operating, internally loaded check valve and independently operating, loaded air inlet valve located on the discharge side of the check valve. This assembly is to be equipped with a properly located resilient seated test cock and tightly closing resilient seated shutoff valves attached at each end of the assembly.**

Tester **shall mean a person that is a certified backflow prevention assembly technician approved by and registered with the City and the TCEQ.**

Thermal expansion **shall mean heated water that does not have the space to expand.**

TCEQ **shall mean the Texas Commission on Environmental Quality.**

Used water **shall mean water supplied by a public water system to a water user's system after it has passed through the service connection.**

Water use survey **shall mean a survey conducted or caused to be conducted by the local authority designed to identify any possible sources of contamination to the potable water supply.**

Sec. 118-183. Right-of-way encroachment.

No person shall install or maintain a backflow prevention assembly upon or within any City right-of-way except as provided in this section.

(1) A backflow prevention assembly required by the City may be installed upon or within any City right-of-way only if the owner proves to the City that there is no other feasible location for installing the assembly, and installing it in the right-of-way will not interfere with traffic or utilities. The City retains the right to approve the location, height, depth, enclosure, and other requisites of the assembly prior to its installation.

(2) All permits and inspections required by this Code to perform work in the right-of-way shall be obtained.

(3) The assembly shall be installed below or flush with the surrounding grade except when it is not practicable to install it in this manner. Any assembly or portion of an assembly which extends aboveground shall be located no closer than 18 inches to the face of the curb.

(4) The City shall not be liable for any damage done to or caused by an assembly installed in a right-of-way

(5) A property owner shall, at the request of the City and at the owner's expense, relocate a backflow prevention assembly which encroaches upon any City right-of-way when such relocation is necessary for street or utility construction, or repairs for purposes of public safety.

(6) A person commits an offense if he/she fails to relocate a backflow prevention assembly located in or upon any City right-of-way after receiving a written order from the regulatory authority.

Sec. 118-184. Multiple connections.

Any premises requiring multiple service connections for adequacy of supply and/or fire protection will be required to install a backflow assembly on each of the additional service lines to the

premises. The type of assembly will be determined by the degree of hazard that could occur in the event of an interconnect between any of the buildings on the premises.

Sec. 118-185. Backflow prevention assembly requirement.

(a) The backflow prevention assembly protection which is required under this ordinance shall be any of the duly nationally recognized and authorized backflow prevention assemblies listed in a State of Texas approved Plumbing Code, or as determined by the regulatory authority. Each backflow prevention assembly must have been approved by the regulatory authority prior to installation. Failure to obtain such approval prior to installation of the backflow prevention assembly may result in the backflow prevention assembly failing to meet final approval by the regulatory authority. The regulatory authority shall determine the type and location of a backflow assembly to be installed within the area served by the City. The assembly will be required in each of the following circumstances, but the representative is in no way limited to the following circumstances:

(1) The nature and extent of any activity of the premises, or the materials used in connection with any activity of the premises, or materials stored on the premises, could contaminate or pollute the potable water supply.

(2) Premises having one or more cross-connections.

(3) Internal cross-connections are present that are not correctable.

(4) Intricate plumbing arrangements that are present which make it impractical to ascertain whether cross-connections exist.

(5) There is unduly restricted entry so that inspections for cross-connections cannot be made with sufficient frequency to assure that cross-connections do not exist.

(6) Installation of an approved backflow prevention assembly is deemed to be necessary to accomplish the purpose of these regulations in the judgment of the City.

(7) An appropriate cross-connection survey report form has not been filed with the public works/water utilities department of the City upon request of the City.

(8) A fire suppression system that is connected to the City's water system.

(9) A new construction, if deemed necessary in the customer service inspection. The type of assembly required will be determined by the degree of hazard.

(10) When a building is constructed on commercial premises, and the end use of such building is not determined or could change, a reduced pressure principle backflow prevention assembly may be installed at the service connection that supplies water for public domestic use.

(11) Any used water return system.

(12) In the event a point-of-use assembly has not had the testing or repair done as required by this article, a premises isolation assembly will be required.

(13) If it is determined that additions or alterations have been made to the plumbing system without obtaining proper permits, premises isolation may be required.

(14) All multistory non-residential buildings or any building with a booster pump, or elevated storage tank.

(15) Retrofitting will be required on all high hazard connections and wherever else the City deems necessary to retrofit.

(b) All backflow prevention assemblies installed after the effective date of this article shall be installed in a manner designed to facilitate ease of inspection by the regulatory authority of the City or his chosen representative. Any currently installed backflow prevention assemblies which are located in inaccessible locations, or where the tester is subject to physical danger, shall be relocated to approved locations following current national guideline standards.

Sec. 118-186. Testing of assemblies.

(a) The regulatory authority shall inspect and test, or cause to be inspected and tested, all backflow prevention assemblies in each of the following circumstances:

(1) Immediately after installation;

(2) Whenever the assembly is moved;

(3) A minimum of once a year for all backflow prevention assemblies at commercial facilities;

(4) A minimum of once a year for all high hazard backflow prevention assemblies;

(5) Premises that have been vacated and unoccupied for one year, prior to re-occupancy; or

(6) Immediately after repairs.

(b) All assembly testing shall be performed by a state certified backflow prevention assembly tester, approved by the regulatory authority.

(c) Duly authorized employees of the City bearing proper credentials and identification are entitled to enter any public or private property at any reasonable time for the purpose of enforcing this article. Persons and occupants of premises which are provided water service by the City, either directly or indirectly, shall allow the City or their representatives ready access at all reasonable times to all parts of the premises for the purposes of inspection, testing, records examination, or in the performance of any of their duties. Where persons or occupants of premises have security measures in force which would require proper identification and clearance before entry into their premises, the persons and occupants of the premises shall make necessary arrangements with their security guards so that upon presentation of suitable identification, personnel from the City will be permitted to enter, without delay, for the purposes of performing their specific responsibilities.

(d) The City is not liable for damage to a backflow prevention assembly which may occur during testing.

(e) The regulatory authority may cause a water use survey to be conducted at any establishment located in the City which is served by a public water supply or which provides water to the public. Upon determination by the regulatory authority that the establishment falls under the provisions of this ordinance and requires a backflow prevention assembly, the regulatory authority shall issue a notice to abate the condition or order the establishment to install the proper backflow prevention assembly.

(f) It is the responsibility of any person who owns or controls property to have all assemblies tested in accordance with this article. Assemblies may be required to be tested more frequently if the regulatory authority deems necessary.

(g) All results from assembly testing by a certified backflow prevention assembly tester shall be placed on a form that is provided by the City.

Sec. 118-187. Thermal expansion.

It is the responsibility of any person who owns or controls property to eliminate the possibility of thermal expansion, if a closed system has been created by the installation of a backflow assembly.

Sec. 118-188. Pressure loss.

Any reduction in water pressure caused by the installation of a backflow assembly is not the responsibility of the City.

Sec. 118-189. Residential service connections.

Any person who owns or controls any residential property which has been determined to have an actual or potential cross-connection will be required to eliminate the actual or potential cross connection or have an approved backflow assembly installed in accordance with this article.

Sec. 118-190. Rental properties.

Any person who owns or controls property is responsible for the installation, testing and repair of all backflow assemblies on their property.

Sec. 118-191. Customer service inspection.

(a) Pursuant to TCEQ water system regulations, a customer service inspection for cross connection control shall be completed by the regulatory authority prior to providing continuous water service in each of the following circumstances:

(1) Water service to a newly constructed facility or previously nonexistent premises.

(2) After any material improvement to building(s) or premises.

(3) Any correction or addition to the plumbing of any facility or premises.

(4) The regulatory authority deems it necessary.

(b) Permanent water service shall not be supplied to a new construction facility(s) until after the customer service inspection is completed by the regulatory authority or representative.

(c) Temporary water services which possess a potential cross-connection threat to the potable water supply shall be protected by an approved backflow prevention assembly.

Sec. 118-192. Installation guidelines, requirements, standards, and specifications.

(a) General to ensure proper operation and accessibility of all backflow prevention assemblies, the following national guideline requirements shall apply to the installation of these assemblies.

(1) Backflow prevention assemblies shall be installed in accordance with the current TCEQ Rules and Regulations. The assembly installer must obtain the required plumbing permits and have the installation inspected by a representative of the regulatory authority.

(2) At those facilities where the regulatory authority requires a backflow prevention assembly to be installed at the point of delivery of the water supply, such installation of the assembly must be before any branch in the line and on private property located just inside the boundary between the City right of way and the landowner's property. The regulatory authority may specify other areas for installation of the assembly. Assemblies that must be installed or are located on City rights-of-way are the responsibilities of the business or entity that the water line is serving.

(3) The assembly must be protected from freezing and other severe weather conditions.

(4) All backflow prevention assemblies shall be of a type and model approved by the regulatory authority.

(5) All vertical installations of backflow assemblies must have prior approval by the regulatory authority.

(6) Assemblies installed more than five feet above floor level must have a suitable platform for use by testing or maintenance personnel.

(7) Bypass lines are prohibited. Pipe fittings which could be used for connecting a bypass line must not be installed.

(8) Premises, where an uninterrupted water supply is critical, should be provided with two assemblies installed in parallel. They should be sized in such a manner that either assembly will provide the maximum flow required.

(9) Lines should be thoroughly flushed prior to installation. A strainer with blowout tapping may be required ahead of the assembly.

(10) All facilities that require continuous, uninterrupted water service and are required to have a backflow assembly must make provisions for the parallel installation of assemblies of the same type so that testing, repair, and maintenance can be performed.

(11) The property owner assumes all responsibility for any damages resulting from installation, operation, and/or maintenance of a backflow assembly. The owner shall be responsible for keeping all backflow prevention assembly vaults reasonably free of silt and debris.

(12) Upon completion of installation, the regulatory authority shall be notified and all assemblies must be inspected and tested. All assemblies must be registered with the regulatory authority and shall provide the date of installation, manufacturer, model, type, size, serial number of the backflow assembly, and initial test report.

(b) Reduced pressure principle backflow prevention assembly (RP) may be utilized at premises where a substance is handled that would be hazardous to health if introduced into the potable water system. The RP is normally used in locations where an air gap is impractical. The RP is effective against both backsiphonage and backpressure.

(1) RPs must be sized to provide an adequate supply of water and pressure for the premises being served. Flow characteristics are not standard. Consult manufacturer's specifications for specific performance data.

(2) The assembly must be readily accessible for testing and maintenance and must be located in an area where water damage to building or furnishing would not occur from relief valve discharge. The property owner assumes all responsibility for any damage caused by water discharge from an RP assembly. An approved air gap shall be located at the relief valve orifice of RP assemblies.

(3) No part of a reduced pressure principle backflow prevention assembly shall be submerged in water or installed in a location subject to flooding. RPs are typically installed above grade in well drained areas, but may be installed below grade (ground level) if a boresight drain to daylight is provided. The drain shall be of adequate capacity to carry the full rated flow of the assembly and shall be screened on both ends.

(4) Enclosures shall be designed for ready access and sized to allow for the minimum clearances established below. Removable protective enclosures are typically installed on the smaller assemblies. Daylight drain ports must be provided to accommodate full pressure discharge from the assembly.

(5) Assemblies two inches and smaller shall have at least six-inch clearance on both sides and on top of the assembly, and 12 inches below and behind the assembly. All assemblies larger than two inches shall have a minimum of 12 inches on the back side, 24 inches on the test cock side, and the relief valve opening shall be at least 12 inches plus nominal size of assembly above the floor or highest possible water level. Headroom of six feet zero inches is required in vaults without a fully removable top. A minimum access opening of 30 inches is required on all vault lids.

(6) All RP assemblies must be tested in accordance with this article. Tests are the responsibility of the assembly owner. The owner must notify the regulatory authority upon installation of any backflow prevention assembly.

(7) Variances from these specifications will be evaluated on a case-by-case basis. Any deviations must have prior written approval by regulatory authority.

(c) Reduced pressure principle detector backflow prevention assembly (RPDA) may be utilized in all installations requiring a reduced pressure principle backflow prevention assembly and detector metering.

(1) RPDAs shall comply with the installation requirements applicable for reduced pressure principle backflow assemblies (RP).

(2) The line-size RP assembly and the bypass RP assembly must each be tested. A separate test report for each assembly must be completed by the certified tester.

(d) Double check valve backflow prevention assembly (DC) may be utilized at premises where a substance is handled that would be objectionable but not hazardous to health if introduced into the potable water system.

(1) DCs must be sized to provide an adequate supply of water and pressure for premises being served. Consult manufacturer's specifications for specific performance data.

(2) Premises, where an uninterrupted water supply is critical, should be provided with two assemblies installed in parallel. Assemblies should be sized in such a manner that either assembly will provide the minimum water requirements while the two together will provide the maximum flow required.

(3) The assembly shall be readily accessible with adequate room for testing and maintenance. DCs may be installed below grade, providing all test cocks are fitted with brass pipe plugs. All vaults shall be well drained, constructed of suitable materials, and sized to allow for the minimum clearances established below.

(4) Assemblies two inches and smaller shall have at least six-inch clearance below and on both sides of the assembly, and if located in a vault, the bottom of the assembly shall be not more than

24 inches below grade. All assemblies larger than two inches shall have a minimum clearance of 12 inches on the back side, 24 inches on the test cock side, and 12 inches below the assembly. Headroom of six feet zero inches is required in vaults without a fully removable top. A minimum access opening of 30 inches is required on all vault lids. "Y" pattern double check valve assemblies shall be installed so that the checks are horizontal and the test cocks face upward. These clearance standards apply to all assemblies installed in vaults, enclosures, and meter boxes.

(5) Vertical installations of DCs are allowed only on sizes up to and including four inches that meet the following requirements:

a. Internally spring-loaded check valves;
b. Flow is upward through assembly;
c. Manufacturer states their assembly can be used in a vertical position; and
d. Approved by director.

(6) All DCs must be tested in accordance with this article. Tests are the responsibility of the assembly owner. The owner must notify the regulatory authority upon installation of any backflow prevention assembly.

(7) Variances from these specifications will be evaluated on a case-by-case basis. Any deviations must have prior written approval by the regulatory authority.

(e) Double check detector backflow prevention assembly (DCDA) may be utilized in all installations requiring a double check valve assembly and detector metering.

(1) DCDAs shall comply with the installation requirements applicable for double check valve assemblies (DCs).

(2) The line-size DC assembly and the bypass DC assembly must each be tested. A separate test report for each assembly must be completed by the certified tester.

(f) Pressure vacuum breaker backflow prevention assembly (PVB) may be utilized at point-of-use protection only and where a substance is handled that would be objectionable but not hazardous to health if introduced into the potable water system. PVBs protect against backsiphonage only and shall not be installed where there is potential for backpressure.

(1) Assembly shall be installed a minimum of 12 inches above highest downstream piping.

(2) PVBs shall not be installed in an area subject to flooding or where damage would occur from water discharge.

(3) The assembly shall be readily accessible for testing and maintenance, with a minimum clearance of 12 inches all around the assembly.

(4) All PVBs must be tested in compliance with this article. Tests are the responsibility of the assembly owner. The owner must notify the regulatory authority upon installation of any backflow prevention assembly.

(5) Variances from these specifications will be evaluated on a case by case basis. Any deviations must have prior written approval of the regulatory authority.

(g) Spill resistant pressure vacuum breaker backflow prevention assembly (SVB) may be utilized in all installations requiring a pressure vacuum breaker.

(1) SVBs shall comply with the installation requirements applicable for pressure vacuum breaker backflow prevention assemblies.

(h) Atmospheric vacuum breakers (AVB) provide minimal protection and are approved for very low hazard application only. AVBs protect against backsiphonage only and are prohibited where there is potential for backpressure.

(1) The assembly shall be installed a minimum of six inches above the highest use outlet or overflow level downstream from assembly.

(2) Shut-off valves downstream from the assembly are prohibited.

(3) AVBs are allowed for only those applications where there is less than 12 hours per day of continuous use.

(4) AVBs cannot be installed below grade.

(5) AVBs cannot be used around toxic or poisonous fumes.

(6) AVBs shall not be installed in an area subject to flooding or where damage may occur from water discharge.

(7) AVBs are allowed for point-of-use protection only.

Sec. 118-193. Air gap separation.

Air gaps provide maximum protection from backflow hazards and should be utilized at all locations where "high" hazardous substances are at risk of entering the potable water system.

(1) An air gap separation shall be at least twice the diameter of the supply pipeline measured vertically above the top rim of the receiving vessel and in no case less than one inch. If splashing is a problem, tubular screens may be attached or the supply line may be cut at a 45° angle. The air gap distance is measured from the bottom of the angle. Hoses are not allowed.

(2) Air gap separations shall not be altered in any way without prior approval from the regulatory authority and must be available for inspection at all reasonable times.

(3) Side walls, ribs or similar obstructions do not affect air gaps when spaced from the inside edge of the spout opening at a distance greater than three times the diameter of the effective opening for a single wall, or at a distance greater than four times the effective opening for two intersecting walls.

Sec. 118-194. Fire suppression systems.

All new installations of a fire suppression system, which utilize the City's potable water supply, shall have installed an approved backflow prevention device according to the degree of hazard.
An approved double check detector backflow prevention assembly (DCDA) or reduced pressure detector assemblies (RPDA) shall be the minimum protection for fire sprinkler systems using piping material that is not approved for potable water use and/or that does not provide for periodic flow-through during each 24-hour period; unless a variance has been issued in writing from the regulatory authority. A RPDA must be installed if any solution other than the potable water can be introduced into the sprinkler system.

(1) It is the responsibility of all property owners and persons in charge of any premises to abide by the conditions of this article. In the event of any changes to the plumbing system, it is the

responsibility of the property owners to notify the regulatory authority. All costs associated with this article and the purchase, installation, testing and repair of a DCDA or RPDA is the responsibility of the property owner and persons in charge of any premises.

(2) Upon the approved installation of the DCDA or RPDA, a cross-connection test report completed by a licensed fire line tester must be sent to the attention of the regulatory authority or his representative and include the information required by this article.

Sec. 118-195. Fire hydrant protection.

An approved double check detector backflow prevention assembly (DCDA) or reduced pressure detector assemblies (RPDA) shall be the minimum protection for fire hydrant water meters which are being used for a temporary water supply during any construction or other uses which would pose a potential hazard to the public water supply. A RPDA must be installed if any solution other than the potable water can be introduced into the public water system.

(1) It is the responsibility of all persons engaging in the use and rental of a fire hydrant water meter to abide by the conditions of this article. All fire hydrant water meter rentals shall meet the current requirements as provided for by the utility customer service division.

(2) Only City fire hydrant water meters with approved backflow prevention assemblies are allowed to be used within the City limits.

(3) A deposit is required to ensure the return of all water meter and backflow assemblies to the utility customer billing division. Failure to return the assemblies can result in the forfeiture of deposit and/or enforcement action being taken against the responsible party, as allowed for in the penalty section of this article (see Schedule of Fees).

(4) All nonapproved fire hydrant meters which are found to be in use in the City will be confiscated and enforcement action taken against the responsible party, as allowed for in the enforcement section in this article.

Sec. 118-196. Compliance for lawn irrigation.

All lawn irrigation system installations shall obtain a permit issued by the building inspection department for such installations. Installation requirements must comply with the current City plumbing code and or guidelines for the appropriate device found in this article. Interconnections of the potable water supply with an alternate water source is prohibited unless appropriate backflow protection is installed. High hazard backflow protection devices must be installed if any mechanical injection stations are used with the irrigation system.

Sec. 118-197. Mobile units.

The connection of a mobile unit to any potable water system is prohibited unless such connection is protected by an air gap or an approved backflow prevention assembly. Prior approval and annual device testing of any backflow prevention assembly must be received from the regulatory authority before connecting to any potable water system.

Sec. 118-198. Responsibilities.

(a) Property owner. It is the responsibility of all property owners and/or persons in charge of any premises to abide by the conditions of this article and to comply with the following:

(1) Payment of all costs associated with this article and the purchase, installation, testing and repair of backflow prevention assemblies.

(2) To have installed and maintain all backflow prevention assemblies in accordance with this article and acceptable industry practice.

(3) All commercial establishments shall cause to have all backflow prevention assemblies on their premises tested annually. Such testing must be conducted by a certified cross connection tester who is registered with the City.

(4) Maintain all backflow prevention assemblies in proper working order at all times, including repair as required.

(5) Maintain all backflow prevention assemblies in a manner which allows them to be tested by a method that has been approved by the regulatory authority.

(6) All records related to backflow prevention assembly installation, testing and repair shall be maintained on the premises for a minimum of three years.

(b) Certified backflow prevention assembly tester shall comply with the following requirements:

(1) Annually register with the regulatory authority and pay the required fee (see Schedule of Fees).

(2) Maintain testing equipment in proper working condition calibration.

(3) Maintain the design or operation characteristics of an assembly.

(4) Ensure that devices are tested according to accepted industry practice and TCEQ regulations.

(5) Enter required testing data, including test gauge serial numbers, on cross-connection test forms obtained from the regulatory authority.

(6) Report test results to the regulatory authority within 30 days of testing.

(7) Provide a copy of the completed test report to the property owners and/or persons in charge of any premises.

(8) Maintain testing and/or repair records for a minimum of three years.

(c) Regulatory authority. The regulatory authority shall inspect and initially test, or cause to be tested, all backflow prevention assemblies installed pursuant to the requirements of this article. For new facilities, permanent water service shall not be provided until all backflow prevention assemblies have been tested and are operational. Except in cases where the testing of backflow prevention assemblies must be delayed until the installation of internal production or auxiliary equipment, the regulatory authority shall not approve a certificate of occupancy until all backflow prevention assemblies have been tested and are operational. The City shall not be liable for damage caused to any backflow prevention assembly as a result of the inspection or testing.

Sec. 118-199. Backflow prevention assembly tester certification registration required.

Only approved TCEQ licensed backflow prevention assembly testers can test in the City. Testers must register annually with the regulatory authority, provide proof of TCEQ certification, provide proof that testing equipment is able to maintain a calibration of plus or minus 0.2 psid accuracy and pay an annual, nonrefundable, tester registration fee (see Schedule of Fees).

Sec. 118-200. Cross-connection control and prevention fees.

Certified backflow prevention assembly tester registration fee. Annual registration fee for approved testers shall be a nonrefundable fee (see Contractor fee on Schedule of Fees).

Sec. 118-201. Enforcement.

(a) Violations

(1) A person commits an offense if he fails to maintain backflow prevention assemblies in compliance with this section.

(2) A person commits an offense if he fails to comply with a repair order issued by the regulatory authority.

(3) A person commits an offense if backflow from premises he owns, operates or manages enters the public water supply system.

(4) A person commits an offense if he fails to pay any fees required by this article.

(5) A person commits an offense if he violates any section of this article.

(6) A person commits an offense if he reinstates water service to a premises discontinued or disconnected under this article, except as directed by the regulatory authority.

(7) A person in charge of any facility commits an offense if he allows an unregistered tester to perform testing work at their establishment.

(8) A person commits an offense if he tests a backflow prevention assembly within the City without being registered with the regulatory authority.

(9) A person commits an offense if he tests a backflow prevention assembly within the City without being certified by the TCEQ.

(b) Penalties.

(1) Criminal penalty. A person who violates any provision of this chapter is violating a City ordinance that governs health and sanitation and shall be guilty of a misdemeanor for each day or portion thereof during which the violation is continued. Each such offense is punishable by a fine not to exceed $500.

(2) Civil actions. The director is hereby authorized to enforce this chapter by civil court actions in accordance with the procedures therefore provided by state or federal law, including, without limitation, actions for injunction, damages, declaratory relief or other remedies that the director shall deem appropriate to pursue.

(3) Civil penalties. Notwithstanding any other provisions of this chapter, if:

a. A person has received actual notice of the provisions of this chapter; and

b. After the person received notice of the provisions of this article, such person committed or continued acts in violation of this article or failed to take action necessary for compliance with this article, the City attorney may initiate a suit against the owner, occupant, or manager of premises that are in violation of this chapter, to recover a civil penalty not to exceed $1,000 per day for each such violation. Each day or fractional part thereof that such noncompliance continues shall constitute a separate violation for which civil penalties shall accrue under this

chapter. Water service may be discontinued if violations are not corrected within five days of notification by the director.

A suit for civil penalties hereunder shall not prevent nor be a prerequisite for taking any other action against a person in violation of this article. Such suit may also include therein a request for such other and further relief as the City attorney shall deem advisable including, without limitation, an action for injunction or claim for damages to recover for expenses, loss, or damage to City property occasioned by reason of such violation.

(4) Remedies cumulative. All remedies authorized under this article are cumulative of all others unless otherwise expressly provided. Accordingly, the filing of a criminal action shall not preclude the pursuit of a civil or administrative action for violation of this article nor shall the filing of a civil action preclude the pursuit of any other action or remedy, administrative or criminal.

(5) Persons responsible. A person is responsible for a violation of this article if:

a. The person commits or assists in the commission of a violation; or

b. The person is the owner, occupant, or manager of the property or facility is determined to be the source of a violation of this article.

(6) Tenant responsibility. Where an owner of property leases or rents the same to any person as tenant or lessee, the owner or tenant or both may be held responsible by the director for noncompliance with the provisions of this article.

(7) Expenses, loss or damage. Any person violating the provisions of this article shall be liable to the City for all expenses, loss, or damage incurred by the City by reason of such violation.

(8) Failure to annually test. If the responsible party fails to have annual testing performed as required by this ordinance, the director may contract with a registered certified backflow prevention assembly technician to perform annual testing requirements and charge the customer for said expense(s) included with the monthly water bill. Nonpayment of this special billing shall be grounds for termination of service in accordance with this Code. The customer shall complete repairs and a re-certification of said assembly(s) within five days of a failed annual "test." Failure to repair defective backflow prevention assembly(s) within the appropriate time will result in notification to remove said service connection.

(9) Water service. The director may refuse or discontinue water service if a backflow prevention assembly is not installed, certified for operation, repaired or replaced as required under this chapter.

(10) Certificate of occupancy. The director may require submittal of complete test and maintenance reports to the utility of any testable backflow prevention device installed prior to final release of water or wastewater inspections. Failure to secure final release of water or wastewater connections shall result in placement of a hold on the issuance of the certificate of occupancy from the department of planning and development.

(c) Sanction for failure to pay inspection fees in addition to sanctions provided for by this article. The City is entitled to exercise sanctions provided for by other ordinances of the City.

(d) A certified tester's registration may be reviewed and revoked by the City if the regulatory authority determines that the tester:

(1) Has falsely, incompletely, or inaccurately reported assembly reports;

(2) Has used inaccurate gauges;

(3) Has used improper testing procedures; or

(4) Has created a threat to public health or the environment.

SECTION 3. **That any person violating any of the provisions of this ordinance shall be deemed guilty of a misdemeanor and upon conviction thereof shall be fined $500. A separate offense shall be deemed committed upon each day during or on which a violation occurs or continues.**

SECTION 4. **That all ordinances or any parts thereof in conflict with the terms of this ordinance shall be and hereby are deemed repealed and of no force or effect; provided, however, that the ordinance or ordinances under which the cases currently filed and pending in the Municipal Court of the City of Bedford, Texas, shall be deemed repealed only when all such cases filed and pending under such ordinance or ordinances have been disposed of by a final conviction or a finding not guilty or nolo contendere, or dismissal.**

SECTION 5. **That if any section, article, paragraph, sentence, clause, phrase or word in this ordinance, or application thereto any person or circumstance is held invalid or unconstitutional by a Court of competent jurisdiction, such holding shall not affect the validity of the remaining portions of this ordinance; and the City Council hereby declares it would have passed such remaining portions of the ordinance despite such invalidity, which remaining portions shall remain in full force and effect.**

SECTION 6. **That this ordinance shall be in full force and effect after its passage and publication as required by law, and it is so ordained.**

PRESENTED AND PASSED on this 25th day of January 2011, by a vote of 7 ayes, 0 nays and 0 abstentions, at a regular meeting of the City Council of the City of Bedford, Texas.

_____
Jim Story, Mayor

ATTEST:

_____
Michael Wells, City Secretary

APPROVED AS TO FORM:

_____
Stan Lowry, City Attorney