

## ACTION FORM BRYAN CITY COUNCIL

<b>DATE OF COUNCIL MEETING:</b> April 23, 2013		<b>DATE SUBMITTED:</b> March 26, 2013	
<b>DEPARTMENT OF ORIGIN:</b> Water Services		<b>SUBMITTED BY:</b> M. Jurica	
<b>MEETING TYPE:</b>	<b>CLASSIFICATION:</b>	<b>ORDINANCE:</b>	<b>STRATEGIC INITIATIVE:</b>
<input type="checkbox"/> BCD	<input type="checkbox"/> PUBLIC HEARING	<input type="checkbox"/> 1ST READING	<input type="checkbox"/> DIVERSITY
<input type="checkbox"/> SPECIAL	<input checked="" type="checkbox"/> CONSENT	<input checked="" type="checkbox"/> 2ND READING	<input type="checkbox"/> EDUCATION
<input checked="" type="checkbox"/> REGULAR	<input type="checkbox"/> STATUTORY		<input checked="" type="checkbox"/> GROWTH
<input type="checkbox"/> WORKSHOP	<input type="checkbox"/> REGULAR		<input checked="" type="checkbox"/> IMAGE
			<input checked="" type="checkbox"/> INFRASTRUCTURE
			<input checked="" type="checkbox"/> PUBLIC SAFETY
<b>AGENDA ITEM DESCRIPTION:</b> Consider adoption of a new article "Water System" under Section 122 "Utilities" of the City of Bryan Code of Ordinances, establishing operational standards for protection and use of the public water system.			
<p><b>SUMMARY STATEMENT:</b> Water Services respectfully requests City Council to authorize adoption of a new article "Water System" to Section 122 "Utilities" of the City of Bryan Code of Ordinances to establish standards for protection and use of the public water system. Currently, staff utilizes aspects of the Plumbing Code to restrict the potential sources of contamination to the water system. The proposed ordinance will add and strengthen needed backflow prevention safeguards to protect the quality and sanitary value of water delivered by the City. Additionally, the proposed ordinance will establish general conditions of use for customer connection to the system, water waste, and private side defects. A summary of topics covered by the ordinance is provided below:</p> <ol style="list-style-type: none"> <li>1. Establishment of limitations for drilling new and operating existing water wells within the city limits.</li> <li>2. Establishment of general conditions for water service, metering, and fire suppression.</li> <li>3. Establishment of regulation to prohibit backflow and cross connection.</li> <li>4. Establishment of a permit process for testers of backflow prevention assemblies.</li> <li>5. Establishment of penalties.</li> </ol> <p>At the February 12, 2013, City Council Workshop, City staff presented information detailing these topics. At that time, the City Council appeared to support the proposed amendments, and therefore, staff continued the process to amend the ordinance with the discussed changes after meeting again with the Water Committee on March 20, 2013, which are reflected in the proposed ordinance. The entire proposed ordinance will be a new section to the City of Bryan Code of Ordinances, and as such, a redline version of the ordinance is not necessary.</p>			
<b>STAFF ANALYSIS:</b>			
<p><b>A. PROS:</b> (1) Adoption of the proposed ordinance establishes conditions of use for the public water system and provides enforceability for conditions not meeting ordinance requirements. (2) Adoption of the proposed ordinance protects the quality and sanitary value of the public water system by prohibiting cross connections and backflow to the system. (3) Usage standards for the public water system are not adequately addressed by the Plumbing Code.</p> <p><b>B. CONS:</b> (1) This ordinance outlines certain procedures for backflow, which will require new fees and outlines specific enforcement avenues.</p>			
<b>STAFF'S RECOMMENDATION (Including Rationale and Justification):</b> Water Services respectfully requests City Council to authorize adoption of a new article "Water System" to Section 122 of the City of Bryan Code of Ordinances. Approval of the proposed ordinance establishes regulation to prevent private side defects, water waste, and contamination of the water system through cross connections and backflow. Lastly, the proposed ordinance provides staff with enforcement avenues for situations and circumstance threatening water quality within the water system.			

**OPTIONS (In Suggested Order of Staff Preference):**

- 1) Approve recommended ordinance changes.
- 2) Approve the ordinance with modifications, which may require City Council consideration at a future City Council meeting.
- 3) Do not approve ordinance changes and continue oversight with the existing ordinance.

**ATTACHMENTS:** Proposed Section 122 “Water System” of the Bryan Code of Ordinances (The entire proposed ordinance will be a new section to the City of Bryan Code of Ordinances, and as such, a redline version of the ordinance is not necessary.)

**FUNDING SOURCE:** N/A

**APPROVALS:** Jayson E. Barfknecht 03/26/13; Hugh R. Walker, 03/27/2013

**APPROVED FOR SUBMITTAL:** Janis K. Hampton, 04-01-2013

**APPROVED FOR SUBMITTAL:** Kean Register, 03-27-2013

Revised 11/08

ORDINANCE NO. \_\_\_\_\_

**AN ORDINANCE OF THE CITY OF BRYAN, TEXAS, AMENDING CHAPTER 122, “UTILITIES”, OF THE BRYAN CITY CODE; BY ADOPTING A NEW ARTICLE II, “WATER SYSTEM,”; REGULATING WATER USE; ADOPTING BACKFLOW DEVICE REQUIREMENTS; REPEALING ALL ORDINANCES OR PARTS OF ORDINANCES IN CONFLICT HEREWITH; PROVIDING A SAVINGS CLAUSE; FINDING AND DETERMINING THAT THE MEETINGS AT WHICH THE ORDINANCE IS PASSED ARE OPEN TO THE PUBLIC AS REQUIRED BY LAW; PROVIDING A SEVERANCE CLAUSE; PROVIDING FOR CODIFICATION; PROVIDING FOR PENALTIES; PROVIDING FOR PUBLICATION IN THE NEWSPAPER AND PROVIDING AN EFFECTIVE DATE.**

**WHEREAS**, the City of Bryan has facilities for the production and distribution of water to its citizens; and

**WHEREAS**, threats to the integrity of the City’s water system, facilities and water resources have been identified related to improper use, Backflow prevention, contamination, and Cross connections; and

**WHEREAS**, such threats should be regulated in the interest of public health and safety; and

**WHEREAS**, the City Council of the City of Bryan wishes to preserve the integrity of the City’s water system and resources;

**NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF BRYAN:**

1.

That Chapter 122, “Utilities”, of the Code of Ordinances of the City of Bryan is hereby amended by adding a new Article II, Water System, to read as follows:

**Article II. WATER SYTEM**

**DIVISION 1. IN GENERAL**

**Sec. 122- 33. Definitions.**

*Air gap separation* means a physical separation between the free flowing discharge end of the City water system and an open or unpressurized receiving line or vessel.

*ASSE* means the American Society of Sanitary Engineers.

*Auxiliary water supply* means any water supply on or available to a customer's premises from a source other than directly through the City water system.

*AWWA* means the American Water Works Association.

*Backflow* means the reversal of flow of water or mixtures of water and other liquids, gases, or other substances from a customer's side of the service connection into the City water system. Backflow may occur under either a Backpressure or Back siphonage condition.

*Backflow prevention assembly* means a device or aggregation of devices designed to prevent Backflow, including reduced pressure Backflow assemblies, double-check valve assemblies, atmospheric vacuum breakers, pressure vacuum breaker assemblies or an Air gap.

*Backpressure* means any elevation of pressure in the downstream piping system (by pump, elevation of piping, or steam and air pressure) above the supply pressure at the point of consideration which would cause, or tend to cause, a reversal of the normal direction of flow.

*Back siphonage* means a reversal of the normal direction of flow in the pipeline due to a negative pressure (vacuum) being created in the supply line with the Backflow source subject to atmospheric pressure.

*Certified Backflow prevention assembly tester* or *Certified tester* means a person who has received certification as a Backflow prevention assembly tester from the TCEQ.

*City* means the City of Bryan, Texas or individuals representing the City.

*City water system* means the entire potable water distribution system of the City, including, without limitation, all pipes, facilities, valves, pumps, conduits, tanks, receptacles and fixtures and appurtenances between the water supply source and the Point of delivery, used by the City to produce, convey, deliver, measure, treat or store potable water for public consumption or use.

*Contamination* means the presence of any foreign substance (organic, inorganic, radiological or biological) in water that tends to degrade its quality so as to constitute a hazard or impair the usefulness of the water. Contamination includes both Hazardous contaminants and Pollutants.

*Cross connection* means a physical connection between drinkable water and a liquid or gas that could make the water unsafe to drink.

*CSA* means the Canadian Standards Association.

*Customer* means any person that is supplied potable water by or through the City water system.

*Customer's system* means the entire plumbing system, including all pipes, conduits, tanks, receptacles, fixtures, equipment and appurtenances used to produce, convey, store or utilize potable water between the Point of delivery and the customer's point of use.

*Department* means the City water and wastewater department.

*Director* means the director of the City water and wastewater department, or another official designated by the City manager.

*Domestic Use* means water used for all usual domestic purposes including consumption, washing, bathing, and food preparation. Any/all water usage within a habitable dwelling or structure.

*FM* means Factory Mutual.

*Hazardous contaminant* means any form of contamination that poses a health hazard or that has the potential to change the quality of the City water system with respect to the use of water for drinking or other domestic purposes.

*Point of delivery* means the point at which water leaves the City water system and enters a customer's system at or near the property line or the edge of an easement. When a water meter is installed on or near the property line or edge of an easement, the "Point of delivery" is the terminal end on the discharge side of the water meter.

*Pollutant* means a substance that impairs the quality of water in a manner or to a degree that does not create a hazard to public health, but may adversely affect the aesthetic qualities of the water for domestic use.

*Potable water* means water that complies with TCEQ rules for drinking water and other domestic uses.

*Public water system* means the entire potable water distribution system of the water purveyor, including, without limitation, all pipes, facilities, valves, pumps, conduits, tanks, receptacles and fixtures and appurtenances between the water supply source and the Point of delivery, used by the purveyor to produce, convey, deliver, measure, treat or store potable water for public consumption or use. This may be the City of Bryan and any other water purveyor registered with the TCEQ for production and delivery of potable water for public consumption.

*Service connection* means the terminal end of a service connection from the City water system, i.e., where the City loses jurisdiction and sanitary control over the water at the Point of delivery to the customer. If a meter is installed at the Point of delivery, the "service connection" means the point at which the terminal end on the discharge side of the water meter connects to the customer's system.

*TAC* means the Texas Administrative Code.

*TDLR* means the Texas Department of Licensing and Regulation or its successor agencies.

*TCEQ* means the Texas Commission on Environmental Quality or its successor agencies.

*UL* means Underwriters Laboratory.

*USC* means the University of Southern California.

#### **Sec. 122-34 Conflicts.**

Except as otherwise provided in this Article, if there is a conflict between the provisions of this Article and the Plumbing Code, the Plumbing Code governs.

#### **Sec. 122-35. Reserved.**

### **DIVISION 2. WATER WELLS**

#### **Sec. 122-36. Water Wells.**

Approval to drill a water well will not be granted when water service from a Public water system can be made available. In rare instances, and only in isolated areas where water service cannot be made available, will approval to drill a well be granted. Factors such as the property's distance from a Public water system, future or planned expansion of service by the Public water system, and conformance of the requested well site's location with existing land uses and anticipated future land uses on the property and/or the surrounding area shall be considered when determining approval.

(a) Requirements for construction of new wells.

- (1) It is unlawful for any person to construct a new water well within the corporate limits of the City or its CCN without first obtaining written approval from the Director. Requests for consideration and approval shall include:
  - i. Written description of the depth and intended use of the well;
  - ii. A map depicting the well, property boundaries, and land uses with 500' of the well;
  - iii. Written approval by the local groundwater conservation district for well construction; and
  - iv. Other documentation as requested.
- (2) New water wells must be drilled by a TDLR-licensed water well driller pursuant to rules promulgated by TAC Title 16§76.200.
- (3) New wells, if approved for construction, will be drilled and developed according to TAC Title 16§76.1005.
- (4) Upon completion of the work, the owner shall furnish the Director with a complete log of the drilling activities within 30 days of well completion.
- (5) The Director has the authority to go upon the land and property of the owner of any water supply well within the City's incorporated boundaries or extraterritorial jurisdiction to inspect and take samples from the well, and to require the owner to give any information requested concerning the well.

(b) Requirements for existing/new wells.

- (1) Each person owning a water well or hereafter drilling a water well in the City will maintain and operate it in accordance with TAC Title 16§76.1006.
- (2) Standards for reworking an existing water well must confirm with the requirements of 122-36(a) and (b) listed above.
- (3) There must be no direct or indirect connection of the water well and the Public water system.
- (4) The property owner, as a condition of approval, authorizes inspection by the City at all reasonable hours, as deemed necessary for the entire time that the well is maintained in operation.
- (5) Wells for Domestic use must be converted to non-domestic use only or permanently closed and the property connected to the Public water system if the Public water system is within 150 feet of the property. This owner must connect to the Public water system within 180 days of availability of service.

(6) Wells for non-domestic use must be permanently closed and the property connected to the public water system if the Public water system is within 150 feet of the property and the well is determined to be defective.

(7) Additional safeguards or standards may be adopted as necessary.

(c) *Closure.* Water wells must be permanently closed pursuant to the requirements of TAC Title 16§76.1004 and made to conform to the requirements of this article. A notice of intention for closure describing how the well will be secured and closed must be provided to the Director for approval. Closure must commence and must be completed within forty-five days after receiving notice to proceed.

(d) *Site Restoration.* Restoration of the well site back to its original condition as nearly as possible must be performed in conformity with the following requirements:

(1) All holes and depressions must be filled with clean, compacted soil; and

(2) All waste, refuse, or waste material must be removed from the site.

**Secs. 122-37- 122-40. Reserved.**

### **DIVISION 3. GENERAL CONDITIONS OF SERVICE**

#### **Sec. 122-41. Connection to City water system required.**

(a) Every building intended for human habitation or occupancy located on property within 150 feet of the City water system must connect to the City water system in accordance with the City's adopted plumbing code. If the property is not located within 150 feet of the City water system, the owner may use an Auxiliary water supply system if approved by the Director and if in accordance with City ordinance and other applicable laws.

(b) The owner of a building served by an Auxiliary water supply system must connect the building to the City water system within 180 days of availability of service. Once the building is connected to the City's water system, no physical connections may remain between the Auxiliary system and the City water system. If an exception is granted by the Director, a reduced pressure zoned device (RPZ) must be installed at the system connection on the Customer's side of the Public water meter if the Auxiliary system is not terminated in accordance with the regulations of this article.

(c) The owner will be notified in writing by the City when private service line defects are identified. Failure of the owner to repair or replace the private service line defects as required by the notice, may result in the City:

(1) Repairing or replacing the line and placing a lien against the property to recoup the cost.

(2) Terminating water service.

(3) Administering penalties and/or enforcement actions as outlined in this chapter.

(d) The City may direct a special repair of private water lines and facilities in circumstances which constitute a health and sanitation or public safety concern. Repair fees will be based upon the actual cost of repair plus overhead as determined by the City.

(e) Any person causing damage to components of the City water system will be charged a fee based upon the actual cost of repair plus overhead as determined by the City.

(f) Property owners required to connect to the City water system under this section must pay all charges and fees applicable for use of the City water system. Fees are set by resolution of the City Council.

**Sec. 122- 42. Separate meter required for each occupancy.**

Each house or building occupied on a separate lot, tract or parcel of land must have a separate meter service line connection from the City water system. This requirement does not apply to a garage apartment, servant's quarters, apartment complex, or mobile home and trailer parks.

**Sec. 122-43. System User.**

It is unlawful for a Customer to:

(a) Install or maintain a potable water supply, piping, or part thereof in such a manner that allows used, unclean, polluted or contaminated water, mixtures, gasses, or other substances to enter any portion of the City's water system by reason of Back siphonage, Backpressure or any other cause.

(b) Install or maintain any water-operated equipment or mechanism, or use any water-treating chemical or substance, if it is determined by the Director that the equipment, mechanism, chemical or substance may cause pollution or contamination of the City's water system. In limited circumstances, the Director may issue written approval to allow the installation or use of water-operated equipment, mechanisms, or water-treating chemicals and substances.

(c) Connect any mechanisms or systems designed to return used water to the City water system.

(d) Connect an auxiliary water system to the City water system without prior written approval from the Director.

**Sec. 122-44. Unlawful taking or use of water.**

(a) It is unlawful for a customer to supply water to other persons or families, except for use on his own premises.

(b) It is unlawful for a person to take water from any public infrastructure (such as a hydrant, plug, sampling cock, hose, pipe or fountain), for private use.

(c) It is an affirmative defense under this section that the water was taken:

(1) By a public employee while performing the duties of his job;

- (2) For fire suppression services; or
- (3) With written permission from the Director.

**Sec. 122-45. Automatic conservation measure.**

It is unlawful for a person to:

- (a) Permit or maintain defective plumbing in a home, business establishment or any location where water is used on the premises. Defective plumbing includes out-of-repair toilets, underground leaks, defective or leaking faucets, connections and taps.
- (b) Allow water to flow constantly through a tap, hydrant, valve, or other aperture without measurable benefit.

**Sec. 122-46. Customer's installation.**

- (a) The Customer is responsible for installing, providing, repairing, and maintaining all water service facilities located on the customer's side of the meter.
- (b) To receive City service, the customer must convey to the City an easement in which to place extensions of the City's service facilities necessary or incidental to the supplying of water service to the customer, without reimbursement from the City.
- (c) The Customer must maintain the premises so that City's agents have safe and unobstructed access to all portions of the easement for the purpose of maintaining, removing, or replacing the City's property, reading meters, inspecting plumbing systems and Backflow methods and assemblies and other apparatus on new and remodeled installation, and all other purposes incident to the supplying of water service to the customer.
- (d) The Customer's Service connections are to be located at a point readily accessible to the City's service facilities. The Service connection point is to be determined by the City, using the most direct route to City facilities, and the point may be relocated if deemed necessary by the City.
- (e) All installations must conform to City plumbing, building, mechanical, energy conservation, fire, and electric codes, and any other City ordinance governing the customer's installation.
- (f) Backflow prevention assemblies, devices and methods must be installed, maintained and operationally tested by the Customer, when water service is directly or indirectly connected, or interconnected to the City water system.
- (g) The customer will install and maintain operable, a City approved water cut off valve at the Point of delivery.

(h) If the Customer's plumbing fixtures are lower than the castings onto the City's mains, the Customer must install Backflow protection equipment as determined by the City.

**Sec. 122-47. City's installation and maintenance.**

The City will install and maintain lines and equipment on the City side of the meter.

**Sec. 122-48. Meter tests.**

(a) The City will test its meters and maintain their accuracy of registration in accordance with AWWA standards.

(b) On request of a Customer, the City will perform a meter test. If the test confirms the registration of a meter to be within AWWA standards, the Customer must pay the cost of the test. Meter test fees are set by resolution of the City Council.

**Sec. 122-49. Transient meters.**

(a) A person requesting a transient meter to take water temporarily from a fire hydrant must submit a written application along with required deposit. The deposit will be returned to the applicant when the transient meter is returned to the City less any deductions from the deposit for unpaid usage charges, penalties for late payment, the cost to repair a damaged meter or fire hydrant, or the cost to replace a lost or destroyed transient meter.

(b) Customers are not permitted to move transient meters and must contact the City for relocation. Unapproved relocation of meters will result in removal of meter and loss of deposit.

(c) The applicant will be billed and must pay for water in accordance with the regulations applicable to billing and payment for water service.

(d) Fees are set by resolution of the City Council.

**Sec. 122- 50. Fire lines and fire suppression systems.**

(a) Backflow prevention is required on all new fire line and fire suppression system installations. The type and extent of Backflow prevention needed is subject to review and approval of the Director. A maximum of one connection to the City water system per separate building will be allowed.

(b) Design, construction and installation of all fire lines and fire suppression lines must be in compliance with the City's Fire Protection and Prevention Code and the Bryan/College Station Unified Design Guidelines and Technical Specifications.

(c) Fire Hydrants, both public and private are considered to be part of a fixed fire extinguishing system. Therefore, no person shall tamper with, render inoperative or inaccessible, or operate a fire hydrant except as necessary during emergencies, maintenance, drills or prescribed testing.

(d) Any hydrant located on private property and deemed by the City to be non-public shall be considered a private hydrant. Owners, operators, or occupants of a building serviced by a private hydrant are responsible for compliance with these regulations. For condominiums, the condominium association is responsible for compliance with these regulations. In this section, "property owner" include any person(s) identified in this subsection (d).

- (1) Prior to any non-emergency use (maintenance, drills, or prescribed testing); written authorization from the Director is required before the operation of any hydrant. Emergency use requires immediate notification of the Fire Department.
- (2) Any damaged or inoperable fire hydrant must be reported to the Fire Department immediately.
- (3) Repairs to damaged hydrants must be performed by a qualified service technician and inspected by the City.
- (4) Hydrants must meet all requirements of the latest revision of AWWA C-502 and be listed by Underwriters Laboratories, Inc. as meeting their standard UL246, latest revisions.
- (5) Hydrants shall open left (counter clockwise) and be marked with an arrow and the word "OPEN" to indicate the direction to turn the operating nut to open the hydrant.
- (6) The hydrant body must be painted reflective white. The bonnet (excluding the operating nut) and discharge port caps must be color coded as follows.
  - a. Less than 500 gpm - Safety Red
  - b. 500 gpm to 999 gpm - Safety Orange
  - c. 1000 gpm to 1499 gpm - Safety Green
  - d. 1500 gpm or greater - Safety Blue
- (7) All fire hydrant locations must be approved by the Fire Marshall.

(e) It is recognized that even though a fire hydrant is on a private water line, it is in the public interest that the hydrant be inspected by qualified personnel to give reasonable assurance that it is maintained in good working order. All privately owned fire hydrants supplied water by the City are to be tested and inspected annually to conform with NFPA 25, Chapter 4 (for more information go to NFPA.org).

- (1) Property owners shall be responsible for contracting a qualified person to perform the test and inspection. The qualified person used to conduct the required testing and maintenance must be permitted with the City.
- (2) A minimum of two business days' notice to the Director is required before any hydrant test may be conducted.
- (3) Hydrant inspection forms must be filled out and a copy submitted to the City within 10 business days. Inspection forms will be provided by the City.

(4) The test/service technician is responsible for notifying all Customers affected by tests (pressure, clarity, traffic etc...).

(5) All hydrants will be maintained free from obstructions for a radius of ten feet from the hydrant.

**Secs. 122-51 - 122-55 Reserved.**

#### **DIVISION 4. BACKFLOW AND CROSS CONNECTION REGULATIONS.**

##### **Sec. 122-56. General Requirements.**

(a) City water service will not be connected, provided to, or maintained for any premises unless the City water system is protected from possible contamination in compliance with the City's adopted plumbing code and as required by this article. If the City determines that a Backflow prevention assembly is necessary at a Customer's water service connection or within the Customer's water system for the safety of the City water system, the City will notify the Customer in writing requesting that the Customer install a City approved Backflow prevention assembly as a condition of receiving or continuing to receive City water service. Within the time specified in the City's notice, the Customer must install and thereafter maintain a Backflow prevention assembly for the Customer's water system at the Customer's expense.

(b) City water service to any premises will be discontinued if a Backflow prevention assembly is not installed, tested, or maintained as required by these regulations, or if it is found that a Backflow prevention assembly has been damaged, removed, bypassed or an unprotected Cross connection exists on the premises.

(c) As a condition to providing or continuing City water service to any Customer, the Customer must make available for City inspection the Customer's water system at all reasonable times to determine whether unprotected Cross connections or other structural or health hazards, including violations of these regulations, exist.

##### **Sec. 122-57. Backflow protection required.**

(a) The City will determine the type and location of each Backflow prevention assembly to be installed. Prior to installation, the City must approve the Backflow prevention assembly for its application and the device must be certified by ASSE, AWWA, CSA, FM, UL, or USC. An assembly is required when:

- (1) The nature and extent of any activity on the premises, or the material used or stored in connection with any activity on the premises could Contaminate or Pollute the City water system.
- (2) The premises have one or more Cross connections protected by an atmospheric vacuum breaker device.
- (3) Internal Cross connections are present that are not correctable.

- (4) Intricate plumbing arrangements are present which make it impractical to ascertain whether a Cross connection exists.
- (5) There is unduly restricted entry so that inspections for Cross connections cannot be made with sufficient frequency to assure the Cross connections do not exist.
- (6) When a site identified under TAC Title 30§290.47(i) does not have an active Customer Service Inspection form on file with the City which states no current Cross connections exist.
- (7) The structure consists of more than two stories.
- (8) The structure has a booster pump or elevated storage tank.
- (9) Deemed necessary to accomplish the purpose of these regulations in the sole judgment of the City.

(b) All Backflow prevention devices installed after the effective date of this ordinance must be constructed in a manner designed to facilitate ease of inspection and testing by a Certified tester within the timeframe and location specified in the provided notice. Any currently installed Backflow prevention assemblies located in inaccessible locations or where the Certified tester is subject to physical danger must be relocated to a location approved by the City.

(c) All lawn irrigation system installations must comply with the City's adopted plumbing code as amended and the guidelines outlined in this article.

(d) Interconnections of the City water system with an alternate water source are prohibited. If an exception is granted by the Director, a reduced pressure zoned device (RPZ) must be installed at the system connection on the service side of the public water meter if the auxiliary water source is not terminated in accordance with the regulations of this article.

**Sec. 122-58. Air gap separation.**

(a) Air gaps provide maximum protection from Backflow hazards and should be utilized at all locations where hazardous contaminants are at risk of entering the City water system.

- (1) An Air gap separation must 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 occurs, tubular screens may be attached or the supply line may be cut at a forty-five degree angle. The Air gap distance is measured from the bottom angle. Hoses are prohibited.
- (2) Air gap separators may not be altered in any way without prior approval from the City and must be available for inspection at all reasonable times.
- (3) Side walls, ribs or smaller obstructions do not effect Air gaps when spaced from the inside edge of the spout opening a distance greater than three times the diameter of the effective opening for two intersecting walls.

(b) The connection of a mobile unit to the City water system is prohibited unless an Air gap or an approved Backflow prevention assembly protects the connection. Approval from the City is required before connecting to the City water system.

**Sec. 122-59. Backflow prevention assembly installation requirements.**

(a) When a Customer is required to have a Backflow prevention assembly and requires continuous, uninterrupted water service, two or more Backflow prevention assemblies of the same type must be installed parallel to one another to allow a continuous water supply during testing, repair and maintenance of each individual Backflow prevention assembly.

(b) The property owner assumes all responsibility for any damage to the private or Public water systems resulting from installation, operation and maintenance of a Backflow prevention assembly. The owner is responsible for keeping all Backflow prevention assembly vaults reasonably free of silt and debris.

(c) Assemblies must be sized and flow characteristics must be sufficient to provide an adequate supply of water and pressure for the premises being served.

(d) Assemblies must be readily accessible for testing and maintenance and must be located in an area where water damage to buildings or furnishings would not occur from water discharge. An approved Air gap must be located at the relief valve orifice for reduced pressure principle backflow prevention assemblies (RPA).

(e) No part of a RPA may be submerged in water or installed in a location subject to flooding.

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

(1) RPDAs must comply with the installation requirements applicable to an RPA and must have adequate freeze protection.

(2) The line-sized RPA and the bypass assembly must each be tested. The Certified tester must complete a separate test report for each assembly.

(g) Vertical installations of double check valve Backflow prevention assemblies (DCs) may be used with pipe diameters up to and including four inches if the installation meets all of the following requirements:

(1) DC has internally spring-loaded check valves;

(2) Flow is upward through assembly;

(3) Device is approved for vertical installation; and

(4) Location is authorized by the Director.

The line-sized DC must be tested. The Certified tester must complete a separate test report for each assembly.

(h) Double check detector backflow prevention assemblies (DCDA) may be used in all installations requiring a DC and detector metering.

(1) DCDA's must comply with the installation requirements for DCs.

(2) The line-sized DC assembly and the bypass DC assembly must each be tested. The Certified tester must complete a separate test report for each assembly.

(i) Pressure vacuum breaker backflow prevention assemblies (PVB) may be utilized as point-of-use protection against Back siphonage only and may not be installed where there is potential for Backpressure, in areas subject to flooding, or where damage would occur from water.

(j) Spill resistant pressure vacuum breaker backflow prevention assemblies (SVB) may be utilized in all installations requiring a PVB. SVBs must comply with the installation requirements applicable for PVBs.

**Sec. 122-60. Inspection, testing and registration of Backflow prevention assemblies.**

(a) *Testing of Backflow prevention assemblies.* The owner, occupant, manager, or other person in control of any premises on which Backflow prevention assemblies are installed must have the assemblies tested by a Certified tester permitted with the City. Testing of Backflow prevention assemblies must be performed annually (within one year of the previous test date except for all assembly installations other than lawn irrigation which do not require annual testing), as well as immediately following installation, relocation, or repair. The City reserves the right to request additional testing. In order to properly register a Backflow prevention assembly with the City, a City approved Backflow Prevention Assembly Test Report must be completed and submitted by a Certified tester on each Backflow prevention assembly tested. Each Backflow Prevention Assembly Test Report shall be received by the City within ten days after the testing, repair, or replacement by a Certified tester. If an assembly fails, the water supply may not be restored until the assembly is repaired or replaced and retested.

(b) *Registration and maintenance of Backflow prevention assemblies.*

(1) Each Backflow prevention assembly located on property subject to this article must be registered with the City. Registration is required within ten days of the Backflow assembly being placed in service.

(2) The owner, occupant, manager, or other person in control of the property is responsible for general maintenance and upkeep of all approved Backflow prevention assemblies located thereon.

(3) Backflow prevention assemblies must be tested, repaired, and replaced at the expense of the owner, occupant, manager, or other person in control of the property whenever the assemblies are determined to be defective by the Director or designee. An assembly is defective if it is not a properly installed Backflow prevention assembly as required by this article.

(c) *New plumbing or plumbing modifications.* The Director or designee will inspect all new Backflow prevention assembly installations subject to this article. The City's Plumbing Inspector or designee will complete and file a Customer Service Inspection Certification form for each new plumbing installation or plumbing modification.

(d) *Existing properties.* The Director or designee will inspect all existing properties connected to the City water system for the purpose of determining whether a Cross connection exists and what type of Backflow prevention assembly should be installed pursuant to this article.

(e) *Existing Backflow prevention assemblies.* Customers with existing Backflow prevention assemblies installed in their system, which have not been registered with the City, as of the effective date of this article must come into compliance with the provisions of this article within ninety days of written notification unless the Director finds a health hazard exists in which case the Director will determine the appropriate time of compliance. Customers with existing assemblies, which comply with the provisions of this article, must provide written proof that each assembly has been properly maintained and serviced by a Certified backflow prevention assembly tester. If maintenance and service records are not available, the Customer must have the assembly tested within the Director's provided timeframe and in accordance with the requirements of this article. If the assembly is not capable of being tested or cannot be repaired, it must be replaced with an approved assembly in accordance with the requirements of this article. Atmospheric vacuum breakers are exempt from this section.

(f) Fees are set by resolution of the City Council.

#### **Sec. 122-61. Removal of Backflow prevention assembly.**

(a) *Removal.* Prior written approval must be obtained from the Director before a Backflow prevention assembly may be removed or relocated.

(b) *Discontinued.* The Director may issue written approval for a property owner to discontinue and remove a Backflow prevention assembly upon receiving sufficient written evidence from the property owner that a hazard no longer exists and is not likely to be created in the future.

(c) *Relocation.* The Director may issue written approval for a property owner to relocate a Backflow prevention assembly upon receiving sufficient written evidence from the property owner that the relocation will continue to provide the required protection and satisfy installation requirements. Water use must be discontinued until the relocation is complete or until the Service connection is equipped with other Backflow protection approved by the City to prevent Backflow during relocation. A retest will be required following the relocation of the assembly.

(d) *Repair.* A Backflow prevention assembly may be removed for repair provided water use is discontinued until the repair is completed and the assembly is returned to service. A retest will be required immediately following the repair of the assembly.

(e) *Replacement.* A Backflow prevention assembly may be removed and replaced provided water use is discontinued until the replacement assembly is installed. A retest will be required immediately following the replacement of the assembly.

**Sec. 122-62. Backflow prevention assembly tester permit.**

(a) *Permit required.* It is unlawful for a person to test a Backflow prevention assembly in the City without a valid permit issued by the City. Permits are not assignable or transferable and are valid for up to one year. Upon request of an applicant or at the Director's discretion, permits may be prorated to expire on a specific date. Applications for permit renewal must be submitted thirty days prior to the expiration of the current permit.

(b) *Permit application.* All new and renewal permit applications must be made on the forms provided by the City and must contain the following information:

- (1) Name, business address, and telephone number of the applicant;
- (2) Serial numbers of all test gauges;
- (3) Most recent record of calibration for Backflow assembly test kit(s);
- (4) State identification or driver's license information;
- (5) Payment of permit fee;
- (6) A copy of the applicant's current TCEQ Backflow Assembly Tester License; and
- (7) Documentation supporting the applicant's applicability to perform service on fire protection systems as outlined by TAC Title 30§290.44(h)(4)(ii).

(c) *Permit Decisions.* The City will evaluate the data furnished by the applicant and may require additional information. Within thirty days of receipt of a completed permit application, the City will determine whether or not to issue a Backflow prevention assembly tester permit. The City may deny an application for a permit for any of the following:

- (1) Failing to provide all of the information required by the City;
- (2) The applicant's past record of ordinance or TCEQ violations;
- (3) Safety record of the applicant based on such things as civil and criminal lawsuits and violations of environmental laws and ordinances; or
- (4) Providing false, misleading or inaccurate information to the City.

(d) *Responsibilities.* Testers of Backflow prevention assemblies are responsible for performing competent tests, issuing accurate reports of Backflow prevention assemblies tested, filing timely Backflow prevention assembly test reports, and paying applicable test fees to the City. Testers may not change the design or operational characteristics of a Backflow prevention assembly without prior written approval of the Director. Test kits used for service must be calibrated annually. Testers must provide verification of calibration for each test kit to the City within ten days receipt from a service provider.

(e) *Quality control.* Upon notification or discovery of possible testing or reporting deficiencies in a tester's test results, the Director may take one or more of the following actions:

- (1) Notify the tester of the deficiencies;
- (2) Retest any Backflow prevention assembly reported as operational;
- (3) Suspend the tester's registration with the City for three or more material testing or reporting deficiencies verified within a twenty-four month period commencing with the first deficiency;
- (4) Revoke the tester's registration with the City for filing a falsified test report;
- (5) Revoke the tester's registration with the City for refusing any reasonable request by the Director or his designee to retest a Backflow prevention assembly; or
- (6) Revoke the tester's registration with the City following a second suspension of tester's registration.

(f) *TCEQ Backflow Assembly Tester License.* Testers must possess a valid TCEQ Backflow Assembly Tester License. A tester must advise the City within five business days of the tester receiving notice that the tester's state license is being suspended or terminated. Evidence of renewal of the tester's state license must be furnished to the Director upon request.

(g) *Fire Protection Systems.* Testers of Backflow devices installed on a fire protection system must possess a valid TCEQ Backflow Assembly Tester License and must satisfy requirements of TAC Title 30§290.44(h)(4)(ii). A tester must advise the City within five business days of the tester receiving notice that the tester's state license and applicability for performing services on a fire protection system is being suspended or terminated. Evidence of renewal of the tester's state license and status of applicability for performing service on a fire protection system must be furnished to the Director upon request.

(h) *Suspension or Revocation of Permit.* A permit may be suspended or revoked by the City for any violation of this article.

(i) *Appeals.* A tester has the right to appeal a determination made by the Director to the City Manager by submitting a written appeal to the City Secretary, with a copy to the Director, not more than five days after receiving notice of the suspension or denial of permit. The City Manager or his or her designee will hear the appeal and issue a written finding not more than twenty days after the notice was delivered to the City Secretary. The City Manager's determination is final.

**Secs. 122-63 - 122-64 Reserved.**

**Division 5. Enforcement.**

**Sec. 122-65. Penalty.**

A person who violates any section of this article is guilty of a misdemeanor and upon conviction is punishable in accordance with section 1-14.

**Sec. 122-66. Right of entry.**

(a) The EPA, TCEQ, and City may inspect the property, premises, and monitoring facilities of any user to determine compliance with the requirements of this article. The user must allow the EPA, TCEQ, and the City or its representatives, upon presentation of credentials or identification, to enter upon the premises of the user at all reasonable hours for the purposes of inspection, sampling, records examination and copying. Entry and access to the facility will be made without delay. The City has the right to set up on the user's property such devices as are necessary to conduct sampling, inspection, compliance monitoring or metering operations.

(b) Anyone acting under this authority must observe the establishment's rules and regulations concerning safety, internal security, and fire protection.

(c) Duly authorized employees of the City bearing proper credentials and identification are entitled to enter all private properties through which the City holds an easement for the purposes of:

- (1) Maintenance of any portion of the City water system lying within the easements; and
- (2) Conducting any other authorized activity. All activities will be conducted in full accordance with the terms of the easement pertaining to the private property involved.

**Sec. 122-67. Notice.**

The City will serve persons operating in violation of this article with written notice stating the nature of the violation and providing a reasonable time limit for satisfactory compliance. Failure of the City to provide such notice does not limit the authority of the City to take any action deemed appropriate.

**Sec. 122-68. Recovery of costs incurred by the City.**

Any person violating any of the provisions of this article; causing damage to or impairing the City's water system; or causing Backflow or contamination of the City's water system will be liable to the City for any expense, loss, or damage caused by such violation or action. The City will bill the person for the costs incurred for any cleaning, repair, replacement, or remediation work caused by the violation or action. Refusal to pay the assessed costs shall constitute a violation of this division enforceable under the provisions of this article.

**Sec. 122-69. Authority to disconnect service.**

The City may terminate water service and disconnect a Customer from the system when:

- (a) The Customer fails to maintain Backflow prevention assemblies in compliance with this article;
- (b) The Customer fails to comply with a repair order issued by the City;

(c) Backflow from premises owned, operated, or managed by the Customer enters the City's water system;

(d) The Customer fails to pay any of the fees required by this article; or

(e) The Customer violates any part of this article.

**Secs. 122-70 - 122-71. Reserved.**

**2.**

That all ordinances or parts of ordinances in conflict with the provisions of this ordinance are hereby repealed to the extent of such conflict.

**3.**

The Code of the City of Bryan, Texas, as amended, shall remain in full force and effect, save and except as amended by this Ordinance.

**4.**

Should any section, paragraph, sentence, clause, phrase or word of this ordinance be declared unconstitutional or invalid for any purpose by a court of competent jurisdiction, the remainder of this ordinance shall not be affected thereby and to this end the provisions of this Ordinance are declared to be severable.

**5.**

It is hereby found and determined that the meetings at which this ordinance was passed were open to the public, as required by Section 551.001 et seq., Texas Government Code, and that advance public notice of time, place and purpose of said meetings was given.

**6.**

It is the intention of the City Council that this Ordinance shall become a part of the Code of the City of Bryan, Texas, and it may be renumbered and codified therein accordingly.

**7.**

That, the City Secretary is directed to publish this Ordinance in a newspaper of general circulation in the City of Bryan in accordance with the provisions of Section 9 of the City Charter, which publication shall be sufficient if it contains the caption, penalty, and effective date of this Ordinance.

**8.**

This Ordinance will be effective from and after its final passage and publication as required by law. The effective date of this Ordinance will be \_\_\_\_\_, 2013.

**PRESENTED AND GIVEN** first reading the 9<sup>th</sup> day of April, 2013, at a regular meeting of the City Council of the City of Bryan, Texas; and given a second reading, passed and approved on the 23<sup>rd</sup> day of April, 2013, by a vote of \_\_\_\_\_ yeses and \_\_\_\_\_ noes at a regular meeting of the City Council of the City of Bryan, Texas.

**ATTEST:**

**CITY OF BRYAN:**

\_\_\_\_\_  
Mary Lynne Stratta, City Secretary

\_\_\_\_\_  
Jason P. Bienski, Mayor

**APPROVED AS TO FORM:**

\_\_\_\_\_  
Janis K. Hampton, City Attorney