

ORDINANCE NO. 43-2

“AN ORDINANCE TO AMEND THE MUNICIPAL CODE, ELIZABETHTON, TENNESSEE, 2000, AS AMENDED, BY REVISING IN THEIR ENTIRETY TITLE 18, CHAPTER 4, SECTIONS 18-401 THROUGH 18-412, AND CREATING NEW SECTIONS 18-413 AND 18-414 IN ORDER TO MAKE IMPROVEMENTS AND UPDATES TO THE CITY OF ELIZABETHTON'S MUNICIPAL CODE DEALING WITH CROSS CONNECTIONS AND BACK-FLOWS.”

WHEREAS, the City of Elizabethton Municipal Code dealing with cross-connections and back-flows was revised by Ordinance No. 40-9 in June, 2004; and,

WHEREAS, additional changes and modifications need to be made to the City Code to update the City Code dealing with cross-connections and back-flows; and,

WHEREAS, the State of Tennessee, Department of Environment and Conservation, has reviewed and approved these proposed changes.

NOW, THEREFORE, BE IT ORDAINED BY THE MAYOR AND THE CITY COUNCIL OF THE CITY OF ELIZABETHTON, TENNESSEE as follows:

SECTION 1. That Title 18, Chapter 4, Section 18-401 shall be revised in its entirety to read as follows:

18-401. Definitions.

- (1) **Public Water Supply.** The waterworks system furnishing water to the City of Elizabethton for general use and which supply is recognized as a public water supply by the Tennessee Department of Environment and Conservation.
- (2) **Cross-Connection.** Any physical connection whereby the public water supply is connected with any other water supply system whether public or private, either inside or outside of any building or buildings, in such manner that a flow of water into the public water supply is possible either through the manipulation of valves or because of any other arrangements.
- (3) **Auxiliary Intake.** Any piping connection or other device whereby water may be secured from a source not approved by the Division of Water Supply or the City of Elizabethton.
- (4) **By Pass.** Any system of piping or other arrangement whereby the water may be diverted around any part or portion of a water purification plant.
- (5) **Interconnection.** Any system of piping or other arrangement whereby the public water supply is connected directly with a sewer, drain, conduit, pool, storage reservoir, auxiliary intake, or other device which does or may contain sewage or other waste or liquid which would be capable of imparting contamination to the public water supply.
- (6) **Person.** Any and all persons, including any individual firm or association, and any municipal or private corporation organized or existing under the laws of this or any other state or country.

(7) Double check-detector check and double check valve assemblies. These devices have only been approved by the City of Elizabethton for limited use. Therefore, the customer or and the installer must obtain prior written approval from the Director of Public Works, or his designated representative of the City of Elizabethton before purchasing and installing these devices for each intended application. Double check detector checks and double check valve assemblies are no longer an approved device by the City of Elizabethton for sprinkler systems/fire lines; upon the failure of an existing device on a sprinkler system/fire line it shall be replaced with a horizontal reduced pressure zone principle back-flow preventer according to the installation criteria listed in this ordinance. Existing Double Check devices that have been installed in a pit or vault; shall be watertight construction; constructed so that it will not flood; must be well drained; drain must be discharged to the atmosphere above the flood plain; must have a sump and pump if subject to groundwater accumulation; test cocks are to be protected with watertight plugs.

(8) Certified Back-flow Inspector. An individual that has completed the special training and demonstration of competency in the Installation and Testing of Back-flow Prevention Devices by State of Tennessee. Attends, and completes current criteria set forth by the State of Tennessee for renewal of his/her current certification in Installation and Testing of Back-flow Prevention Devices.

(9) Degree of Hazard. Means an evaluation of the potential risk to public health and the adverse effect of the hazard upon the potable water system.

(10) Health Hazard. An actual or potential threat of contamination of a physical or toxic nature to the public potable water system.

(11) Nontoxic. Not poisonous; a substance that will not cause illness or discomfort if consumed.

(12) Parallel Devices. Two devices side by side with approved plumbing to keep water from being shut off during repair or replacement; this is used where water service cannot be discontinued, parallel devices shall be installed.

(13) Annual Inspection. All devices must pass an inspected one time per calendar year as determined by the City of Elizabethton.

(14) Bi-Annual Inspections. Devices must be inspected two times per calendar year ending November 1, of each year. A minimum of four months must be in-between inspections.

(15) Reduced Pressure Principle or Reduced Pressure Zone Device (RP OR RPZ). A mechanical device consisting of two independently operating, spring-loaded check valves with a reduced pressure zone between the checks designed to protect against both back pressure and back-siphonage. Annual testing and inspection dates for domestic and fire line devices are determined by the last inspection or the deadline of November 1 of each year; this is strictly at the City of Elizabethton's discretion. The City of Elizabethton will evaluate each device every five years to determine if a complete overhaul is required. Reduced

pressure back-flow prevention devices are required for domestic and/or process service, where back-flow protection is required by the City of Elizabethton. RPZ assemblies are required on all buildings with a water service connection that may have the potential or future potential of a cross connection determined by the City of Elizabethton; an RPZ is also required on all fire and sprinkler systems. Therefore, the customer or installer must obtain prior approval from the Director of Public Works, or his designated representative of the City of Elizabethton before purchasing and installing reduced pressure zone devices for each intended application.

(16) Installation of RPZ Devices. All RPZ's must be installed in a horizontal position with the relief port down. Exception: existing Fire lines that would require a change out with major reconstruction of plumbing may be a vertical installation as long as the device and installation is approved by City of Elizabethton in writing. Strainers should be installed ahead of device. No strainer is to be used in a fire line without the written approval of the fire official having jurisdiction and or the insurance underwriter. RPZ must never be installed in a pit, or other area that could flood. RPZ must have protection from freezing and vandalism. RPZ should be installed where they are easily accessible for testing and maintenance. All devices must have at least three times the diameter from wall, a minimum of 12" above the floor, maximum height of 60" from floor level. A RPZ must have a drain adequate to keep area from flooding. (Installation above a floor drain is ideal.) The relief valve should never be plugged, and a device must be installed with an air gap if a drain system is connected to the relief port. All strainers, pressure reducers, valves, shutoffs pertaining to the back-flow assembly must meet the State of Tennessee, USC Foundation for Cross-Connection Control and Hydraulic Research, and City of Elizabethton approval and installation requirements.

(17) Assembly failure. The back-flow prevention assembly will be replaced or repaired within the time frame specified by the type of hazard and the possibility of contamination. Hazard and level of hazard will be determined by the City of Elizabethton. All sites that are high hazard and an immediate (imminent) risk of contamination shall be repaired and re-tested immediately. High hazard locations should have parts to rebuild the device or a parallel device in place. High hazards will be allowed up to seven days to have the assembly rebuilt, replaced, and re-tested. If there are high or low hazards present, but no cross connections and is not an imminent risk of contamination, the maximum time for repair and retest is ninety days. However, this is strictly at the discretion of the City of Elizabethton, and fourteen days are recommended.

(18) Conditional Assemblies. Assemblies installed prior to the adoption of the approved list by the Division of Water Supply and the City of Elizabethton may be allowed continued operation if the following conditions are satisfied: Existing assembly must meet minimum standard set by State of Tennessee and City of Elizabethton for hazard; conditional assembly must be inspected bi-annually, and must pass each inspection. The City must be notified immediately by the customer and inspector with a written plan of action if the assembly fails. If the assembly fails, only manufacturer-specified parts may be used for repair. If manufacturer-specified parts are not available, the assembly must

be replaced with an approved assembly listed on the State of Tennessee and City of Elizabethton approved list. If the assembly is repaired or rebuilt, a certified back-flow inspector must perform the repairs. Prior arrangements must be made to locate spare parts or a replacement device. Prior notification is required before the new approved assembly is installed; the back-flow prevention assembly will be replaced within the time frame specified by the City of Elizabethton.

(19) Inspector Duties. All inspectors must be approved by the State of Tennessee and City of Elizabethton. Inspector is responsible for verifying device and installation approval with the city; Inspector must provide state update certification and test kit calibration certification to the city upon conducting an inspection; Inspector is responsible for sending the inspection report to the city within 10 days of inspection. Inspector must also leave a copy of inspection with customer; pass or fail must be at the top right corner of all inspection reports; inspector must notify the city immediately with a plan of action upon failure of a high hazard device; inspector must notify the city in writing within 48 hours with a plan of action upon failure of all other devices; plan of action must include: date, location, device, what is to be done, repair or replacement time table. The inspector must include on all inspection reports: license number and expiration date of certification on inspection report, telephone number of inspector, name of premises, address of service, contact person with phone number, use and location of device, size, manufacturer, type, line pressure, rebuilt date, serial number of device, full model number, company, company address and telephone number, signature of inspector, date of inspection, test values, comments, if an old device is being replaced the serial number must be under the new device serial number with OLD beside it. If the device serial number and model number cannot be verified the device shall be replaced. All new devices must be inspected at installation; all new construction must have device inspected prior to occupancy permit. The inspector will have all privileges suspended and will not be allowed to test back-flow assemblies in the Elizabethton water system if falsifying information or failure to comply with inspection criteria; suspension time is strictly at the discretion of the City of Elizabethton. If the inspector continues to fail to comply with the above criteria he/she shall be taken off the approved list for the City of Elizabethton service area, and the State of Tennessee will be notified.

SECTION 2. That Title 18, Chapter 4, Section 18-402 shall be revised in its entirety to read as follows:

18-402. Standards. That the City of Elizabethton Public Water Supply is to comply with the Tennessee Code Annotated §68-221-711, as well as the Rules and Regulations for Public Water Supplies, legally adopted in accordance with this code, which pertain to cross connections, auxiliary intakes, bypasses, and interconnections, and establish an effective ongoing program to control these undesirable water uses.

SECTION 3. That Title 18, Chapter 4, Section 18-403 shall be revised in its entirety to read as follows:

18-403. Construction, operation, and supervision. That it shall be unlawful for any person to cause a cross connection to be made; or allow one to exist for any purpose whatsoever unless the construction and operation of same have been

approved by the Tennessee Department of Environment and Conservation and the operation of such cross connection, auxiliary intakes, bypass or inter-connection is at all time under the **direct supervision of the Director of Public Works, or his designated representative** of the City of Elizabethton.

SECTION 4. That Title 18, Chapter 4, Section 18-404 shall be revised in its entirety to read as follows:

18-404. Statement required. That any person whose premises are supplied with water from the public water supply, and who also has on the same premises a separate source of water supply or stores water in an uncovered or unsanitary storage reservoir from which the water stored therein is circulated through a piping system, shall file with the **Director of Public Works, or his designated representative** a statement of the non-existence of unapproved or unauthorized auxiliary intakes, bypasses, or interconnection. Such statement shall also contain an agreement that no cross connection, auxiliary intake, bypass, or interconnection will be permitted upon the premises.

SECTION 5. That Title 18, Chapter 4, Section 18-405 shall be revised in its entirety to read as follows:

18-405. Inspections required. That it shall be the duty of the City of Elizabethton Water Department to cause inspections to be made of all properties served by the public water supply where cross connections with the public water supply are deemed possible. **The Director of Public Works, or his designated representative shall establish the frequency of inspections and re-inspections based on potential health hazards, of the City of Elizabethton Public Water Supply and as approved by the Tennessee Department of Environment and Conservation. That it shall be the duty of property owner and or occupant to have each and all devices inspected annually** by a State Certified Back-flow Inspector that meets the City of Elizabethton criteria; and a written report shall be supplied by the City of Elizabethton within 10 days of inspection. If the device fails the inspection, the Certified Inspector must notify the City of Elizabethton immediately for a high hazard, and within 48 hours for all other hazards. A written plan of action shall also accompany notification which shall contain all work performed on the device including flushing lines. *All cost associated with inspections, repairs or replacement will be the responsibility of the property owner or occupant.*

SECTION 6. That Title 18, Chapter 4, Section 18-406 shall be revised in its entirety to read as follows:

18-406. Right of entry for inspections. That the **Director of Public Works or his designated representatives** shall have the right to enter at any reasonable time, any property served by the connection to the City of Elizabethton Public Water Supply for the purpose of inspecting the piping system or systems thereof for cross connections, auxiliary intakes, bypasses, or inter-connections. On request, the owner, lessees, or occupant of any property so served shall furnish to the inspection agency any pertinent information regarding the piping system or systems on such property. The refusal of such information or refusal of access, when requested, shall be deemed evidence of the presence of cross connections.

SECTION 7. That Title 18, Chapter 4, Section 18-407 shall be revised in its entirety to read as follows:

18-407. Correction of existing violations.

(1) That any person who now has cross connections, auxiliary intakes, bypasses, or inter-connections in violation of the provisions of this Ordinance shall be allowed a reasonable time within which to comply with provisions of this ordinance. After a thorough investigation of existing conditions and an appraisal of time required to complete the work, the Director of Public Works, or his designated representative of the City of Elizabethton shall designate the amount of time.

(2) The failure to correct conditions threatening the safety of the public water system as prohibited by this ordinance and the Tennessee Code Annotated §68-221-711, within the time limits set by Director of Public Works, or his designated representative shall be grounds for denial of water service. If after the specified time, proper protection has not been provided against a high hazard, the water service will be discontinued immediately. If proper protection has not been provided after reasonable time for all other hazards, the utility shall give the customer legal notification that water service is to be discontinued, and physically separate the public water supply from the customers onsite piping system in such a manner that the two systems cannot again be connected by an unauthorized person.

(3) Where cross connections, inter-connections, auxiliary intakes, or bypasses are found that constitutes an extreme hazard of immediate concern of contaminating the public water system, the Director of Public Works, or his designated representative shall require that immediate corrective action be taken to eliminate the threat to disconnect the public water supply from the on site piping system unless the imminent hazard(s) is corrected immediately.

SECTION 8. That Title 18, Chapter 4, Section 18-408 shall be revised in its entirety to read as follows:

18-408. Use of protective devices.

- (1) That where the nature of use of the water supplied premises by the water department is such that it is deemed:
- (a) Impractical to provide and effective air gap separation.
 - (b) That the owner and/or occupant of the premises cannot or is not willing to demonstrate to the official in charge or the system, or his designated representative, that the water use and protective features of the plumbing are such as to propose no threat to the safety or potability of the water supply.
 - (c) That the nature and mode of operation within a premise are such the frequent alterations are made to the plumbing.
 - (d) There is likelihood that protective measures may be subverted, altered, or disconnected.
- (2) **The Director of Public Works or his designated representative**, shall require the use of an approved protective device on the service line serving the premises to assure that any contaminate that may originate in the customer's premises is contained therein. The protective device shall be a reduced pressure zone back-flow preventer approved by the Tennessee Department of Environment and Conservation and the City of Elizabethton as to manufacture, model, and size. The method of installation of back-flow protective devices shall be approved by the Director of Public Works or his designated representative, prior to installation and shall meet or exceed the criteria set forth by the Tennessee Department of Environment and Conservation. The installation shall be at the expense of the owner or occupant of the premises.
- (3) Personnel of the City of Elizabethton Public Water Supply, and/or a State Certified Back-flow Inspector shall have the right to inspect and test the device or devices.

(4) Where the use of water is critical to the continuance of normal operations or protection of life, property, or equipment, duplicate parallel devices shall be required to avoid the necessity of discontinuing water service to test or repair the protective device or devices. Where it is found that only one unit has been installed and the continuance of service is critical, the Director of Public Works, or his designated representative shall notify, in writing, the occupant of the premises that parallel devices will be required for future testing. Prior to the parallel device installation a plan to discontinue water service and arrange for a mutually acceptable time to test and/or repair the device. The water supplier shall require the occupant of the premises to make all repairs indicated promptly, to keep the unit (s) working properly and the expense of such repairs shall be borne by the owner or occupant of the premises. **Repairs and inspections shall be made by qualified personnel, acceptable to the Director of Public Works, or his designated representative of the City of Elizabethton Public Water Supply.**

(5) If necessary, water services shall be discontinued (following legal notification) for failure to maintain back-flow prevention devices in proper working order. Likewise the removal, bypassing, or altering the protective device (s) or the installation thereof so as to render the device (s) ineffective shall constitute grounds for immediate discontinuance of water service. Water service to such premises shall not be restored until the customer has corrected or eliminated such conditions or defects to the satisfaction of the Director of Public Works, or his designated representative.

SECTION 9. That Title 18, Chapter 4, Section 18-409 shall be revised in its entirety to read as follows:

18-409. Unpotable water to be labeled. That the potable water supply made available to the premises served by the public water supply be protected from possible contamination as specified herein. Any water outlet which could be used for potable or domestic purposes and which is not supplied by the potable system must be labeled in a conspicuous manner as: **WATER UNSAFE FOR DRINKING. Minimum acceptable sign shall have black letters at least one inch high located on a red background.**

SECTION 10. That Title 18, Chapter 4, Section 18-410 shall be revised in its entirety to read as follows:

18-410. Applicability of chapter. The requirements contained herein shall apply to all premises served by all divisions of the City of Elizabethton Water System whether located inside or outside the Corporate Limits and are hereby made a part of the conditions required to be met for the city to provide water services to any premises. Such action, begin essential for the protection of water distribution system against the entrance of contamination which may render the water unsafe health wise, or otherwise undesirable, shall be enforced rigidly without regard to location of the premises, whether inside or outside the City of Elizabethton Corporate Limits.

SECTION 11. That Title 18, Chapter 4, Section 18-411 shall be revised in its entirety to read as follows:

18-411. Violations. That any person who neglects or refuses to comply with any of the provisions of this ordinance shall be deemed guilty of a misdemeanor and, upon conviction therefore, shall be fined not less than Ten Dollars (\$10) nor more than one hundred dollars (\$100), and each day of continued violation after conviction shall constitute a separate offense. In addition to the foregoing fines and penalties the **Director of Public Works, or his designated representative of the City of Elizabethton,** shall discontinue the public water supply service at any

premises upon which there is found to be a cross connection, auxiliary intake, bypass, or interconnection, and service shall not be restored until such cross connection, auxiliary intake, bypass, or interconnection, has been discontinued.

SECTION 12. That Title 18, Chapter 4, Section 18-412 shall be revised in its entirety to read as follows:

18-412. Savings Clause. That, should any part, or parts of this Ordinance be declared invalid for any reason, no other part, or parts of this Ordinance shall be affected thereby.

SECTION 13. That Title 18, Chapter 4, Section 18-413 shall be created as a new section and read as follows:

18-413. Conflicting Ordinances Repealed. That all Ordinances and parts of Ordinances in conflict with this Ordinance shall be hereby repealed.

SECTION 14. That Title 18, Chapter 4, Section 18-414 shall be created as a new section and read as follows:

18-414. Promulgation of rules by Public Works Director. The Director of Public Works, or his designated representative of The City of Elizabethton, Tennessee, is hereby authorized, directed and empowered to make, declare and promulgate such Policy, Rules and Regulations as is necessary to see to the proper regulation and enforcement of this Ordinance.

SECTION 15. This Ordinance shall take effect ten (10) days from and after its final passage.

PASSED ON FIRST READING January 11, 2007
PUBLIC HEARING HELD: February 8, 2007
PASSED ON SECOND READING: February 8, 2007

ATTEST:

Larry D. Clark
LARRY D. CLARK, CITY CLERK

This document has been examined
by me and is approved as to form.

R.G. Day
ROGER G. DAY, CITY ATTORNEY

CITY OF ELIZABETHTON, TENNESSEE

BY: Curt Alexander
CURT ALEXANDER, MAYOR