

TITLE 18

WATER AND SEWERS¹

CHAPTER

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CHAPTER 1

WATER AND SEWER SYSTEM ADMINISTRATION

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¹Municipal code references

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18-101. Application and scope. The provisions of this chapter are a part of all contracts for receiving water service from the town and shall apply whether the service is based upon contract, agreement, signed application, or otherwise.

18-102. Definitions. (1) "Customer" means any person, firm, or corporation who receives water service from the town under either an express or implied contract.

(2) "Premise" means any structure or group of structures operated as a single business or enterprise, provided, however, the term "premise" shall not include more than one (1) dwelling.

(3) "Service line" shall consist of the pipe line extending from any water main of the town to private property. Where a meter and meter box are located on private property, the service line shall be construed to include the pipe line extending from the town's water main to and including the meter and meter box.

18-103. Obtaining service. A formal application for either original or additional service must be made and be approved by the water department before connection or meter installation orders will be issued and work performed.

A nonrefundable service fee of fifty dollars (\$50.00) for property owners and one hundred dollars (\$100.00) for renter will be required before service is commenced. This service fee shall be charged every time water is cut on to a different location.

18-104. Application and contract for service. Each prospective customer desiring water service will be required to sign a standard form contract before service is supplied. If, for any reason, a customer, after signing a contract for service, does not take such service by reason of not occupying the premises or otherwise, he shall reimburse the town for the expense incurred by reason of its endeavor to furnish such service.

The receipt of a prospective customer's application for service, regardless of whether or not accompanied by a deposit, shall not obligate the water department to render the service applied for. If the service applied for cannot be supplied in accordance with these rules and regulations and general practice, the liability of the water department to the applicant shall be limited to the return of any service deposit made by such applicant.

18-105. Service charges for temporary service. (1) Customers requiring temporary service shall notify the water department of their desire to have water turned on for a period of time not to exceed two (2) weeks.

(2) A twenty-five dollar (\$25.00) upfront fee shall be charged for all temporary service which will cover up to two thousand (2,000) gallons of water. The customer will be billed the regular rate for any water used over two thousand (2,000) gallons.

(3) Water will be discontinued at the end of the two (2) week period unless the customer gives notice to cutoff prior to this time period or pays an additional twenty-five dollar (\$25.00) fee to continue the service for an additional two (2) weeks.

18-106. Service connections. Service lines will be laid in all cases by the water department from the main to the property line. The water department will install, and pay for the installation of, all service lines to the property line. When a service line is completed, the town shall be responsible for the maintenance and upkeep of such service line from the main to and including the meter and meter box, and such portion of the service line shall belong to the town. The remaining portion of the service line beyond the meter box shall be installed and belong to and be the responsibility of the customer. All water lines shall have a cutoff valve attached on the customer side of the meter.

18-107. Cost of connections. The tap fee for new service is as follows:

3/4" Tap	Inside rate	\$ 850.00
	Outside rate	\$ 850.00
1" Tap	Inside rate	\$ 1,200.00
	Outside rate	\$ 1,200.00
2" Short side tap	Inside rate	\$ 2,000.00
	Outside rate	\$ 2,000.00
2" Long side tap (road bore)	Inside rate	\$ 2,500.00
	Outside rate	\$ 2,500.00

All taps will be charged additional cost for labor and materials if necessary. (as replaced by Ord. #19-436, Dec. 2019 *Ch1_12-01-22*)

18-108. Private fire lines. Private fire lines or sprinkler lines will be installed at the expense of the customer; such construction to be made in accordance with the specifications of the water department. Such lines shall be owned and maintained by the customer.

Water department employees shall have access to the premises at all reasonable hours, for the purpose of inspecting such private fire lines and/or sprinkler systems.

18-109. Multiple services through a single meter. No customer shall supply water service, or allow water to be carried through a hose or pipe, to any premise other than that described in the water application, without first obtaining the written permission of the water department. Any new service will have a separate tap. All commercial units, both present and future, will have a separate tap.

All customers serving water to more than one (1) housing unit per tap must pay a minimum bill for each such unit serviced plus two dollars and fifty cents (\$2.50) for each one thousand (1,000) gallons over the number of minimums. Outside customers would pay five dollars (\$5.00) for each one thousand (1,000) gallons over the number of minimums.

18-110. Supply to steam boilers. In no event shall a steam boiler be supplied directly from a water main of the town; but in all cases in which water is supplied to steam boilers from the town mains, there shall be a tank or other receptacle located between the boiler and the water main, and such supply shall be taken directly from the water tank or receptacle. A backflow device will also be used.

18-111. Special service. The water department may issue permits for the use of water for building or construction purposes, or other temporary purposes, provided that the applicant shall pay for tapping and installing and conform to all other requirements of the water department.

18-112. Illegal use of fire hydrants. No person other than authorized agents of the water department or fire department shall take water from a fire hydrant without the consent of the water department.

18-113. Water and main extensions. Persons desiring water main extensions must pay all of the cost of making such extensions.

All such extensions shall be installed either by town forces or by other forces working directly under the supervision of the town in accordance with plans and specifications prepared by an engineer registered with the State of Tennessee.

Upon completion of such extensions and their approval by the town, such water mains shall become the property of the town. The persons paying the cost of constructing such mains shall execute any written instruments requested by the town to provide evidence of the town's title to such mains. In consideration of such mains being transferred to it, the town shall incorporate said mains as an integral part of the municipal water and sewer systems and shall furnish

water and sewer service therefrom in accordance with these rules and regulations, subject always to such limitations as may exist because of the size and elevation of the mains.

18-114. Water main extension variances. Whenever the board of mayor and aldermen is of the opinion that it is to the best interest of the town and its inhabitants to construct a water main extension without requiring strict compliance with the preceding section, such extension may be constructed upon such terms and conditions as shall be approved by the board of mayor and aldermen.

The authority to make water main extensions under the preceding section is permissive only and nothing contained therein shall be construed as requiring the town to make such extensions or to furnish service to any person or persons.

18-115. Meters. All meters shall be installed, tested, repaired, and removed only by the town.

No one shall do anything which will in any way interfere with or prevent the operation of a meter. No one shall tamper with or work on a water meter without the written permission of the town. No one shall install any pipe or other device which will cause water to pass through or around a meter without the passage of such water being registered fully by the meter.

The town will also make tests or inspections of its meters at the request of the customer. However, if a test required by a customer shows a meter to be accurate within the limits stated above, the customer shall pay meter testing charges.

18-116. No guarantee of pressure and/or supply. The water department does not guarantee to the customer any fixed pressure or a continuous supply. In the case of breaks in mains, service pipes, pumping machinery, reservoirs, or other equipment of the water department, and for the purpose of extending, replacing, or cleaning mains, or any other necessary work in connection with mains, the water may be shut off when necessary without notice and the town shall not be liable for damages which may arise therefrom.

18-117. Damages to property due to water pressure. The town shall not be liable to any customer for damages caused to his plumbing or property by high pressure, low pressure, or fluctuations in pressure in the town's water mains.

18-118. Customer billing and payment policy. Water bills shall be payable monthly at the water department's office, or at a place designated by the water department.

Meters will be read around the third week of the month and bills will be mailed to customers on or about the last day of the month.

Bills are due and payable on or before the twelfth (12th) day of each month. Bills shall increase ten percent (10%) if not paid on or before the twelfth (12th) day of each month. In the event the twelfth (12th) of the month falls on Saturday, Sunday or a holiday when the water department is closed, the customer will have until the next business day to pay without penalty. If bills are not paid by the twenty-second (22nd) day of each month by 8:00 A.M., then the town shall turn off the water to the customer and shall charge a fee of fifty dollars (\$50.00) for turning the water back on, either for non-payment of bills or for any violation of these rules and regulations, if re-connected during regular business hours. However, if the re-connect occurs after hours, the fee will be seventy-five dollars (\$75.00).

After hours re-connection is not guaranteed. If the past due bill and re-connection fee is paid in full, the reconnection of water service will be within forty-eight (48) hours. Water department servicemen cannot receive payments.

Failure to receive a bill will not release a customer from payment obligation.

If the owner of the premises being supplied water desires to be billed rather than the tenant, or customer, for water used, the owner himself must fill out the application and pay the service fee as set forth above. The owner shall be held responsible for any violation of these rules and regulations.

If a meter fails to register properly, or if a meter is removed to be tested or repaired, or if water is received other than through a meter, the town reserves the right to render an estimated bill based on the best information available.

18-119. Water turned on. Water shall not be turned on for any purpose by anyone except an authorized employee of the water department.

Whenever water service has been discontinued for non payment of any bill rendered, or because of a violation of this chapter, a charge as set forth in these rules and regulations shall be made to cover the cost of turning the water on again, and this charge shall be paid in advance.

18-120. Water shut off. The owner or agent of rental property shall notify the water department at the time such property becomes vacant. Otherwise the owner or agent shall be responsible for any damage to the property of the water department, and for all water furnished to such property up until receipt of such vacancy notice.

The water department will presume service is being rendered from the time water is turned on at the request of the customer, owner, or agent, until the customer, owner, or agent gives its written notice to discontinue the service and charges will be made accordingly.

18-121. Failure of consumer to comply with regulations. The water department may refuse to furnish water to the premises of any applicant who

fails to meet all the applicable conditions and terms of the foregoing regulations, or it may discontinue water service in the event the customer violates or fails to comply with any of the foregoing regulations.

18-122. Access to customers' premises. The town's identified representatives and employees shall be granted access to all customers' premises at all reasonable times for the purpose of reading meters, for testing, inspecting, repairing, removing, and replacing all equipment belonging to the town, and for inspecting customers' plumbing and premises generally in order to secure compliance with these rules and regulations.

18-123. Customer's responsibility for system's property. Except as herein elsewhere expressly provided, all meters, service connections, and other equipment furnished by or for the town shall be and remain the property of the town. Each customer shall provide space for and exercise proper care to protect the property of the town on his premises. In the event of loss or damage to such property arising from the neglect of a customer to care for it properly, the cost of necessary repairs or replacements shall be paid by the customer.

18-124. Customer's responsibility for violations. Where the town furnishes water service to a customer, such customer shall be responsible for all violations of these rules and regulations which occur on the premises so served. Personal participation by the customer in any such violations shall not be necessary to impose such personal responsibility on him.

18-125. Unauthorized use of or interference with water supply. No person shall turn on or turn off any of the town's stop cocks, valves, hydrants, spigots, or fire plugs without permission or authority from the town.

18-126. Size of trunk. All developers will be required to install a minimum of a six-inch (6") water line and furnish the required number of fire hydrants. There will be no refunds on the cost of installation of water lines.

18-127. Cross-connections. Cross-connections to any of the Estill Springs water department lines will constitute a misdemeanor and will be dealt with in title 18, chapter 3.

18-128. Adjustments for excessive water bills and instructions for cutoff valves. Monthly bill that was the result of a water leak will be added to the five (5) previous bills and averaged. Abuse will result in no adjustment until the board of mayor and aldermen see fit. The requirements for a water adjustment are as follows:

(1) Amount of bill must be at least three (3) times previous month's bill;

- (2) Leak must not be due to negligence;
 - (3) Proof of repairs must be submitted before adjustment can be made;
- and
- (4) Only one (1) adjustment within a three (3) year period.

Water leak adjustments will be subject to review by the water superintendent and the board of mayor and aldermen if deemed necessary. All water customers will have a cutoff valve installed adjacent to his/her side of the meter.

18-129. Restricted use of water. In times of emergencies or in times of water shortage, the town reserves the right to restrict the purposes for which water may be used by a customer and the amount of water which a customer may use.

18-130. Schedule of rates.¹ Water service rates shall be at such rates as are from time to time set by the board of mayor and aldermen by resolution.

¹Administrative ordinances are of record in the office of the recorder

CHAPTER 2

SEWAGE AND HUMAN EXCRETA DISPOSAL¹

SECTION

- 18-201. Definitions.
- 18-202. Places required to have sanitary disposal methods.
- 18-203. Use of septic tanks.
- 18-204. Registration and records of septic tank cleaners, etc.
- 18-205. Use of pit privy or other method of disposal.
- 18-206. Approval and permit required for septic tanks, privies, etc.
- 18-207. Owner to provide disposal facilities.
- 18-208. Occupant to maintain disposal facilities.
- 18-209. Only specified methods of disposal to be used.
- 18-210. Discharge into watercourses restricted.
- 18-211. Pollution of ground water prohibited.
- 18-212. Enforcement of chapter.
- 18-213. Carnivals, circuses, etc.
- 18-214. Violations and penalty.

18-201. Definitions. The following definitions shall apply in the interpretation of this chapter:

(1) "Approved septic tank system." A watertight covered receptacle of monolithic concrete, either precast or cast in place, constructed according to plans approved by the health officer. Such tanks shall have a capacity of not less than seven hundred fifty (750) gallons and in the case of homes with more than two (2) bedrooms the capacity of the tank shall be in accordance with the recommendations of the Tennessee Department of Health as provided for in its 1967 bulletin entitled "Recommended Guide for Location, Design, and Construction of Septic Tanks and Disposal Fields." A minimum liquid depth of four feet (4') should be provided with a minimum depth of air space above the liquid of one foot (1'). The septic tank dimensions should be such that the length from inlet to outlet is at least twice but not more than three (3) times the width. The liquid depth should not exceed five feet (5'). The discharge from the septic tank shall be disposed of in such a manner that it may not create a nuisance on the surface of the ground or pollute the underground water supply, and such disposal shall be in accordance with recommendations of the health officer as determined by acceptable soil percolation data.

¹Municipal code reference
Plumbing code: title 12, chapter 2.

(2) "Health officer." The person duly appointed to such position having jurisdiction, or any person or persons authorized by the board of mayor and aldermen to enforce this chapter.

(3) "Human excreta." The bowel and kidney discharges of human beings.

(4) "Other approved method of sewage disposal." Any privy, chemical toilet, or other toilet device (other than a sanitary sewer, septic tank, or sanitary pit privy as described above) the type, location, and construction of which have been approved by the health officer.

(5) "Sanitary pit privy." A privy having a fly-tight floor and seat over an excavation in earth, located and constructed in such a manner that flies and animals will be excluded, surface water may not enter the pit, and danger of pollution of the surface of the ground or the underground water supply will be prevented.

(6) "Sewage." All water-carried human and household wastes from residences, buildings, or industrial establishments.

(7) "Watercourse." Any natural or artificial drain which conveys water either continuously or intermittently. (1997 Code, § 18-201)

18-202. Places required to have sanitary disposal methods. Every residence, building, or place where human beings reside, assemble, or are employed within the corporate limits shall be required to have a sanitary method for disposal of sewage and human excreta. (1997 Code, § 18-202)

18-203. Use of septic tanks. All water carried sewage shall be discharged into an approved septic tank system. No septic tank or other water carried sewage disposal system shall be installed without the approval of the health officer or his duly appointed representative. (1997 Code, § 18-203)

18-204. Registration and records of septic tank cleaners, etc. Every person, firm, or corporation who operates equipment for the purpose of removing digested sludge from septic tanks, cesspools, privies, and other sewage disposal installations on private or public property must register with the health officer and furnish such records of work done within the corporate limits as may be deemed necessary by the health officer. (1997 Code, § 18-204)

18-205. Use of pit privy or other method of disposal. Wherever a sanitary method of human excreta disposal is required under § 18-202 and water-carried sewage facilities are not used, a sanitary pit privy or other approved method of disposal shall be provided. (1997 Code, § 18-205)

18-206. Approval and permit required for septic tanks, privies, etc. Any person, firm, or corporation proposing to construct a septic tank system, privy, or other sewage disposal facility, requiring the approval of the

health officer under this chapter, shall before the initiation of construction obtain the approval of the health officer for the design and location of the system and secure a permit from the health officer for such system. (1997 Code, § 18-206)

18-207. Owner to provide disposal facilities. It shall be the duty of the owner of any property upon which facilities for sanitary sewage or human excreta disposal are required by § 18-202, or the agent of the owner to provide such facilities. (1997 Code, § 18-207)

18-208. Occupant to maintain disposal facilities. It shall be the duty of the occupant, tenant, lessee, or other person in charge to maintain the facilities for sewage disposal in a clean and sanitary condition at all times. (1997 Code, § 18-208)

18-209. Only specified methods of disposal to be used. No sewage or human excreta shall be thrown out, deposited, buried, or otherwise disposed of, except by a sanitary method of disposal as specified in this chapter. (1997 Code, § 18-209)

18-210. Discharge into watercourses restricted. No sewage or excreta shall be discharged or deposited into any lake or watercourse except under conditions specified by the health officer and specifically authorized by the Tennessee Stream Pollution Control Board. (1997 Code, § 18-210)

18-211. Pollution of ground water prohibited. No sewage, effluent from a septic tank, sewage treatment plant, or discharges from any plumbing facility shall empty into any well, either abandoned or constructed for this purpose, cistern, sinkhole, crevice, ditch, or other opening either natural or artificial in any formation which may permit the pollution of ground water. (1997 Code, § 18-211)

18-212. Enforcement of chapter. It shall be the duty of the health officer to make an inspection of the methods of disposal of sewage and human excreta as often as is considered necessary to insure full compliance with the terms of this chapter. Written notification of any violation shall be given by the health officer to the person or persons responsible for the correction of the condition, and correction shall be made within ten (10) days after notification. If the health officer shall advise any person that the method by which human excreta and sewage is being disposed of constitutes an immediate and serious menace to health such person shall at once take steps to remove the menace, and failure to remove such menace immediately shall be punishable under the general penalty clause for this code. However, such person shall be allowed the

number of days herein provided within which to make permanent correction. (1997 Code, § 18-212)

18-213. Carnivals, circuses, etc. Whenever carnivals, circuses, or other transient groups of persons come within the corporate limits such groups of transients shall provide a sanitary method for disposal of sewage and human excreta. Failure of a carnival, circus, or other transient group to provide such sanitary method of disposal and to make all reasonable changes and corrections proposed by the health officer shall constitute a violation of this section. In these cases the violator shall not be entitled to the notice of ten (10) days provided for in the preceding section. (1997 Code, § 18-213)

18-214. Violations and penalty. Any person, persons, firm, association, or corporation or agent thereof, who shall fail, neglect, or refuse to comply with the provisions of this chapter shall be deemed guilty of a misdemeanor and shall be punishable under the general penalty clause for this code. (1997 Code, § 18-214)

CHAPTER 3

CROSS-CONNECTION ORDINANCE¹

SECTION

- 18-301. Objectives.
- 18-302. Definitions.
- 18-303. Compliance with Tennessee Code Annotated.
- 18-304. Regulated.
- 18-305. Permit required.
- 18-306. Inspections.
- 18-307. Right of entry for inspections.
- 18-308. Correction of violations.
- 18-309. Required devices and repairs.
- 18-310. Non-potable supplies.
- 18-311. Statement required.
- 18-312. Penalty; discontinuance of water supply.
- 18-313. Provision applicable.

18-301. Objectives. The objectives of this ordinance are to:

- (1) To protect the public potable water system of Town of Estill Springs from the possibility of contamination or pollution by isolating within the customer's internal distribution system, such contaminants or pollutants that could backflow or backsiphon into the public water system;
- (2) To promote the elimination or control of existing cross-connections, actual or potential, between the customer's in-house potable water system and non-potable water systems, plumbing fixtures, and industrial piping systems; and
- (3) To provide for the maintenance of a continuing program of cross-connection control that will systematically and effectively prevent the contamination or pollution of all potable water systems. (Ord. #11-387, Oct. 2011)

18-302. Definitions. The following words, terms and phrases shall have the meanings ascribed to them in this section, when used in the interpretation and enforcement of this article:

- (1) "Air-gap" shall mean a vertical, physical separation between a water supply and the overflow rim of a non-pressurized receiving vessel. An

¹Municipal code reference

Plumbing code: title 12.

Water and sewer system administration: title 18.

Wastewater treatment: title 18.

approved air-gap separation shall be at least twice the inside diameter of the water supply line, but in no case less than six inches (6"). Where a discharge line serves as receiver, the air-gap shall be at least twice the diameter of the discharge line, but not less than six inches (6").

(2) "Atmospheric vacuum breaker" shall mean a device, which prevents backsiphonage by creating an atmospheric vent when there is either a negative pressure or sub-atmospheric pressure in the water system.

(3) "Auxiliary intake" shall mean any water supply, on or available to a premise, other than that directly supplied by the public water system. These auxiliary waters may include water from another purveyor's public water system; any natural source, such as a well, spring, river, stream, and so forth; used, reclaimed or recycled waters; or industrial fluids.

(4) "Backflow" shall mean the undesirable reversal of the intended direction of flow in a potable water distribution system as a result of a cross-connection.

(5) "Backpressure" shall mean any elevation of pressure in the downstream piping system (caused by pump, elevated tank or piping, steam and/or air pressure) above the water supply pressure at the point which would cause, or tend to cause, a reversal of the normal direction of flow.

(6) "Backsiphonage" shall mean the flow of water or other liquids, mixtures or substances into the potable water system from any source other than its intended source, caused by the reduction of pressure in the potable water system.

(7) "Bypass" shall mean any system of piping or other arrangement whereby water from the public water system can be diverted around a backflow prevention device.

(8) "Cross-connection" shall mean any physical connection or potential connection whereby the public water system is connected, directly or indirectly, with any other water supply system, sewer, drain, conduit, pool, storage reservoir, plumbing fixture or other waste or liquid of unknown or unsafe quality, which may be capable of imparting contamination to the public water system as a result of backflow or backsiphonage. Bypass arrangements, jumper connections, removable sections, swivel or changeover devices, through which or because of which backflow could occur, are considered to be cross-connections.

(9) "Double check valve assembly" shall mean an assembly of two (2) independently operating, approved check valves with tightly closing resilient seated shut-off valves on each side of the check valves, fitted with properly located resilient seated test cocks for testing each check valve.

(10) "Double check detector assembly" shall mean an assembly of two (2) independently operating, approved check valves with an approved water meter (protected by another double check valve assembly) connected across the check valves, with tightly closing resilient seated shut-off valves on each side of the check valves, fitted with properly located resilient seated test cocks for testing each part of the assembly.

(11) "Fire protection systems" shall be classified in six (6) different classes in accordance with *AWWA Manual M14-Second Edition 1990*. The six (6) classes are as follows:

Class 1 shall be those with direct connections from public water mains only; no pumps, tanks or reservoirs; no physical connection from other water supplies; no antifreeze or other additives of any kind; all sprinkler drains discharging to the atmosphere, dry wells or other safe outlets.

Class 2 shall be the same as Class 1, except that booster pumps may be installed in the connections from the street mains.

Class 3 shall be those with direct connection from public water supply mains, plus one (1) or more of the following: elevated storage tanks, fire pumps taking suction from above ground covered reservoirs or tanks, and/or pressure tanks (all storage facilities are filled from or connected to public water only, and the water in the tanks is to be maintained in a potable condition).

Class 4 shall be those with direct connection from the public water supply mains, similar to Class 1 and Class 2, with an auxiliary water supply dedicated to fire department use and available to the premises, such as an auxiliary supply located within one thousand seven hundred feet (1,700') of the pumper connection.

Class 5 shall be those directly supplied from public water mains and interconnected with auxiliary supplies, such as pumps taking suction from reservoirs exposed to contamination, or rivers and ponds; driven wells; mills or other industrial water systems; or where antifreeze or other additives are used.

Class 6 shall be those with combined industrial and fire protection systems supplied from the public water mains only, with or without gravity storage or pump suction tanks.

(12) "Interconnection" shall mean any system of piping or other arrangements whereby the public water supply is connected directly with a sewer, drain, conduit, pool, storage reservoir, 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 system.

(13) "Person" shall mean any and all persons, natural or artificial, 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.

(14) "Potable water" shall mean water, which meets the criteria of the Tennessee Department of Environment and Conservation and the United States Environmental Protection Agency for human consumption.

(15) "Pressure vacuum breaker" shall mean an assembly consisting of a device containing one (1) or two (2) independently operating spring loaded check valves and an independently operating spring loaded air inlet valve located on the discharge side of the check valve(s), with tightly closing shut-off valves on each side of the check valves and properly located test cocks for the testing of the check valves and relief valve.

(16) "Public water supply" shall mean the Town of Estill Springs, which furnishes potable water to the public for general use and which is recognized as the public water supply by the Tennessee Department of Environment and Conservation.

(17) "Reduced pressure principle backflow prevention device" shall mean an assembly consisting of two (2) independently operating approved check valves with an automatically operating differential relief valve located between the two (2) check valves, tightly closing resilient seated shut-off valves, plus properly located resilient seated test cocks for the testing of the check valves and the relief valve.

(18) "Manager" shall mean the manager of the Town of Estill Springs or his duly authorized deputy, agent or representative.

(19) "Water system" shall be considered as made up of two (2) parts, the utility system and the customer system.

(a) The utility system shall consist of the facilities for the storage and distribution of water and shall include all those facilities of the water system under the complete control of the utility system, up to the point where the customer's system begins (i.e. the water meter);

(b) The customer system shall include those parts of the facilities beyond the termination of the utility system distribution system that are utilized in conveying domestic water to points of use. (Ord. #11-387, Oct. 2011)

18-303. Compliance with Tennessee Code Annotated. The Town of Estill Springs shall be responsible for the protection of the public water system from contamination or pollution due to the backflow of contaminants through the water service connection. The Town of Estill Springs shall comply with § 68-221-711 of the *Tennessee Code Annotated*, as well as the Rules and Regulations for Public Water Systems and Drinking Water Quality, legally adopted in accordance with this code, which pertain to cross-connections, auxiliary intakes, bypasses and interconnections; and shall establish an effective, on-going program to control these undesirable water uses. (Ord. #11-387, Oct. 2011)

18-304. Regulated. (1) No water service connection to any premises shall be installed or maintained by the Town of Estill Springs unless the water supply system is protected as required by state laws and this ordinance. Service of water to any premises shall be discontinued by the Town of Estill Springs if a backflow prevention device required by this ordinance is not installed, tested, and/or maintained; or if it is found that a backflow prevention device has been removed, bypassed, or if an unprotected cross-connection exists on the premises. Service shall not be restored until such conditions or defects are corrected.

(2) 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 is at all times under the direction of the manager of the Town of Estill Springs.

(3) If, in the judgment of the manager or his designated agent, an approved backflow prevention device is required at the water service connection to a customer's premises, or at any point(s) within the premises, to protect the potable water supply, the manager shall compel the installation, testing and maintenance of the required backflow prevention device(s) at the customer's expense.

(4) An approved backflow prevention device shall be installed on each water service line to a customer's premises at or near the property line or immediately inside the building being served; but in all cases, before the first branch line leading off the service line.

(5) For new installations, the manager or his designated agent shall inspect the site and/or review plans in order to assess the degree of hazard and to determine the type of backflow prevention device, if any, that will be required, and to notify the owners in writing of the required device and installation criteria. All required devices shall be installed and operational prior to the initiation of water service.

(6) For existing premises, personnel from the Town of Estill Springs shall conduct inspections and evaluations, and shall require correction of violations in accordance with the provisions of this ordinance. (Ord. #11-387, Oct. 2011)

18-305. Permit required. (1) New installations. No installation, alteration, or change shall be made to any backflow prevention device connected to the public water supply for water service, fire protection or any other purpose without first contacting the Town of Estill Springs for approval.

(2) Existing installations. No alteration, repair, testing or change shall be made of any existing backflow prevention device connected to the public water supply for water service, fire protection or any other purpose without first securing the appropriate approval from the Town of Estill Springs. (Ord. #11-387, Oct. 2011)

18-306. Inspections. The manager or his designated agent shall inspect all properties served by the public water supply where cross-connections with the public water supply are deemed possible. The frequency of inspections and re-inspection shall be based on potential health hazards involved, and shall be established by the Town of Estill Springs in accordance with guidelines acceptable to the Tennessee Department of Environment and Conservation. (Ord. #11-387, Oct. 2011)

18-307. Right of entry for inspection. The manager or his authorized representative shall have the right to enter, at any reasonable time, any property served by a connection to the Town of Estill Springs public water system for the purpose of inspecting the piping system therein for cross-connection, auxiliary intakes, bypasses or interconnections, or for the testing of backflow prevention devices. Upon request, the owner, lessee, or occupant of any property so served shall furnish any pertinent information regarding the piping system(s) on such property. The refusal of such information or refusal of access, when requested, shall be deemed evidence of the presence of cross-connections, and shall be grounds for disconnection of water service. (Ord. #11-387, Oct. 2011)

18-308. Correction of violations. (1) Any person found to have cross-connections, auxiliary intakes, bypasses, or interconnections in violation of the provisions of this ordinance shall be allowed a reasonable time within which to comply with the provisions of this ordinance. After a thorough investigation of existing conditions and an appraisal of the time required to complete the work, the manager or his representative shall assign an appropriate amount of time, but in no case shall the time for corrective measures exceed ninety (90) days.

(2) Where cross-connections, auxiliary intakes, bypasses or interconnections are found that constitute an extreme hazard, with the immediate possibility of contaminating the public water system, the Town of Estill Springs shall require that immediate corrective action (within fourteen (14) days) be taken to eliminate the threat to the public water system. Expeditious steps shall be taken to disconnect the public water system from the on-site piping system unless the imminent hazard is immediately corrected, subject to the right to a due process hearing upon timely request. The time allowed for preparation for a due process hearing shall be relative to the risk of the hazard to the public health and may follow disconnection when the risk to the public health and safety, in the opinion of the manager, warrants disconnection prior to a due process hearing.

(3) The failure to correct conditions threatening the safety of the public water system as prohibited by this ordinance and *Tennessee Code Annotated*, § 68-221-711, within the time limits established by the manager or his representative, shall be grounds for denial of water service. If proper protection has not been provided after a reasonable time, the manager shall give the

customer legal notification that water service is to be discontinued, and shall physically separate the public water system from the customer's on-site piping in such a manner that the two (2) systems cannot again be connected by an unauthorized person, subject to the right of a due process hearing upon timely request. The due process hearing may follow disconnection when the risk to the public health and safety, in the opinion of the manager, warrants disconnection prior to a due process hearing. (Ord. #11-387, Oct. 2011)

18-309. Required devices and repairs. (1) An approved backflow prevention assembly shall be installed downstream of the meter on each service line to a customer's premises at or near the property line or immediately inside the building being served, but in all cases, before the first branch line leading off the service line, when any of the following conditions exist:

- (a) Impractical to provide an effective air-gap separation;
- (b) The owner/occupant of the premises cannot or is not willing to demonstrate to the Town of Estill Springs that the water use and protective features of the plumbing are such as to pose no threat to the safety or potability of the water;
- (c) The nature and mode of operation within a premises are such that frequent alterations are made to the plumbing;
- (d) There is likelihood that protective measures may be subverted, altered or disconnected;
- (e) The nature of the premises is such that the use of the structure may change to a use wherein backflow prevention is required; or
- (f) The plumbing from a private well or other water source enters the premises served by the public water system.

(2) The protective devices shall be of the reduced pressure zone type (except in the case of certain fire protection systems and swimming pools with no permanent plumbing installed) approved by the Tennessee Department of Environment and Conservation and the Town of Estill Springs, as to manufacture, model, size and application. The method of installation of backflow prevention devices shall be approved by the Town of Estill Springs prior to installation and shall comply with the criteria set forth in this ordinance. The installation and maintenance of backflow prevention devices shall be at the expense of the owner or occupant of the premises.

(3) Premises requiring reduced pressure principle assemblies or air gap separation. High risk high hazards. Establishments which pose significant risk of contamination or may create conditions which pose an extreme hazard of immediate concern (high risk high hazards), the cross-connection control inspector shall require immediate or a short amount of time (fourteen (14) days maximum), depending on conditions, for corrective action to be taken. In such cases, if corrections have not been made within the time limits set forth, water service will be discontinued.

High risk high hazards require a reduced pressure principle (or detector) assembly. The following list is establishments deemed high risk high hazard and require a reduced pressure principle assembly:

High hazard. In cases where there is less risk of contamination, or less likelihood of cross-connections contaminating the system, a time period of (ninety (90) days maximum) will be allowed for corrections. High hazard is a cross-connection or potential cross-connection involving any substance that could, if introduced in the public water supply, cause death, illness, and spread disease. (See Appendix A of plan)

(4) Should a protective assembly be found defective or have a status of failed, the water system will require the assembly to be repaired promptly with manufacturer's specified parts, in accordance to manufacturer's suggested procedure, and placed in proper operating condition within a maximum of thirty (30) days or fourteen (14) days for high risk high hazard locations. Following repairs, the assembly is to be tested again to verify that it is meeting performance standards and have a status of passed. Those locations with assemblies that do not have a status of passed within ninety (90) days of the initial failed test, fourteen (14) days for high risk high hazard locations, will be disconnected from the distribution system. The owner will be held responsible for maintaining protective measures in a good state of repairs. The owner of an assembly needing repairs or maintenance will be permitted to do the work, if such owner is properly qualified or the owner may elect to secure the services of someone else experienced in the repair of the assemblies.

(5) Applications requiring backflow prevention devices shall include, but shall not be limited to, domestic water service and/or fire flow connections for all medical facilities, all fountains, lawn irrigation systems, wells, water softeners and other treatment systems, swimming pools and on all fire hydrant connections other than those by the fire department in combating fires. Those facilities deemed by Town of Estill Springs as needing protection.

(a) Class 1, Class 2 and Class 3 fire protection systems shall generally require a double check valve assembly; except

(i) A double check detector assembly shall be required where a hydrant or other point of use exists on the system; or

(ii) A reduced pressure backflow prevention device shall be required where:

(A) Underground fire sprinkler lines are parallel to and within ten feet (10') horizontally of pipes carrying sewage or significantly toxic materials;

(B) Premises have unusually complex piping systems;

(C) Pumpers connecting to the system have corrosion inhibitors or other chemicals added to the tanks of the fire trucks.

(b) Class 4, Class 5 and Class 6 fire protection systems shall require reduced pressure backflow prevention devices.

(c) Wherever the fire protection system piping is not an acceptable potable water system material, or chemicals such as foam concentrates or antifreeze additives are used, a reduced pressure backflow prevention device shall be required.

(d) Swimming pools with no permanent plumbing and only filled with hoses will require a hose bibb vacuum breaker be installed on the faucet used for filling.

(6) The manager or his representative may require additional and/or internal backflow prevention devices wherein it is deemed necessary to protect potable water supplies within the premises.

(7) Installation criteria. The minimum acceptable criteria for the installation of reduced pressure backflow prevention devices, double check valve assemblies or other backflow prevention devices requiring regular inspection or testing shall include the following:

(a) All required devices shall be installed in accordance with the provisions of this ordinance, by a person approved by the Town of Estill Springs who is knowledgeable in the proper installation. Only licensed sprinkler contractors may install, repair or test backflow prevention devices on fire protection systems.

(b) All devices shall be installed in accordance with the manufacturer's instructions and shall possess appropriate test cocks, fittings and caps required for the testing of the device (except hose bibb vacuum breakers). All fittings shall be of brass construction, unless otherwise approved by the Town of Estill Springs, and shall permit direct connection to department test equipment.

(c) The entire device, including valves and test cocks, shall be easily accessible for testing and repair.

(d) All devices shall be placed in the upright position in a horizontal run of pipe.

(e) Device shall be protected from freezing, vandalism, mechanical abuse and from any corrosive, sticky, greasy, abrasive or other damaging environment.

(f) Reduced pressure backflow prevention devices shall be located a minimum of twelve inches (12") plus the nominal diameter of the device above either;

- (i) The floor,
- (ii) The top of opening(s) in the enclosure, or
- (iii) Maximum flood level,

whichever is higher. Maximum height above the floor surface shall not exceed sixty inches (60").

(g) Clearance from wall surfaces or other obstructions shall be at least six inches (6"). Devices located in non-removable enclosures shall

have at least twenty-four inches (24") of clearance on each side of the device for testing and repairs.

(h) Devices shall be positioned where a discharge from the relief port will not create undesirable conditions. The relief port must never be plugged, restricted or solidly piped to a drain.

(i) An approved air-gap shall separate the relief port from any drainage system. An approved air-gap shall be at least twice the inside diameter of the supply line, but never less than one inch (1").

(j) An approved strainer shall be installed immediately upstream of the backflow prevention device, except in the case of a fire protection system.

(k) Devices shall be located in an area free from submergence or flood potential, therefore never in a below grade pit or vault. All devices shall be adequately supported to prevent sagging.

(l) Adequate drainage shall be provided for all devices. Reduced pressure backflow prevention devices shall be drained to the outside whenever possible.

(m) Fire hydrant drains shall not be connected to the sewer, nor shall fire hydrants be installed such that backflow/backsiphonage through the drain may occur.

(n) Enclosures for outside installations shall meet the following criteria:

(i) All enclosures for backflow prevention devices shall be as manufactured by a reputable company or an approved equal.

(ii) For backflow prevention devices up to and including two inches (2"), the enclosure shall be constructed of adequate material to protect the device from vandalism and freezing and shall be approved by the Town of Estill Springs. The complete assembly, including valve stems and hand wheels, shall be protected by being inside the enclosure.

(iii) To provide access for backflow prevention devices up to and including two inches (2"), the enclosure shall be completely removable. Access for backflow prevention devices two and one-half inches (2 1/2") and larger shall be provided through a minimum of two (2) access panels. The access panels shall be of the same height as the enclosure and shall be completely removable. All access panels shall be provided with built-in locks.

(iv) The enclosure shall be mounted to a concrete pad in no case less than four inches (4") thick. The enclosure shall be constructed, assembled and/or mounted in such a manner that it will remain locked and secured to the pad even if any outside fasteners are removed. All hardware and fasteners shall be constructed of 300 series stainless steel.

(v) Heating equipment, if required, shall be designated and furnished by the manufacturer of the enclosure to maintain an interior temperature of plus forty degrees Fahrenheit (+40°F) with an outside temperature of minus thirty degrees Fahrenheit (-30°F) and a wind velocity of fifteen (15) miles per hour.

(o) Where the use of water is critical to the continuance of normal operations or the protection of life, property or equipment, duplicate backflow prevention devices shall be provided to avoid the necessity of discontinuing water service to test or repair the protective device. Where it is found that only one (1) device has been installed and the continuance of service is critical, the Town of Estill Springs shall notify, in writing, the occupant of the premises of plans to interrupt water services and arrange for a mutually acceptable time to test the device. In such cases, the Town of Estill Springs may require the installation of a duplicate device.

(p) The Town of Estill Springs shall require the occupant of the premises to keep any backflow prevention devices working properly, and to make all indicated repairs promptly. Repairs shall be made by qualified personnel acceptable to the Town of Estill Springs. Expense of such repairs shall be borne by the owner for occupant of the premises. The failure to maintain a backflow prevention device in proper working condition shall be grounds for discontinuance of water service to a premises. Likewise the removal, bypassing or alteration of a backflow prevention device or the installation thereof, so as to render a device ineffective shall constitute a violation of this ordinance and shall be grounds for 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 Town of Estill Springs.

(8) Testing of devices. Devices shall be tested at least annually by the Town of Estill Springs by a qualified person possessing a valid certification from the Tennessee Department of Environment and Conservation, Division of Water Supply for the testing of such devices. A record of this test will be on file with the Town of Estill Springs and a copy of this report will be supplied to the customer. Water service shall not be disrupted to test a device without the knowledge of the occupant of the premises. There will be no charge for annual testing. (Ord. #11-387, Oct. 2011)

18-310. Non-potable supplies. The potable water supply made available to premises served by the public water system shall be protected from possible contamination as specified in the provisions of this ordinance. Any water pipe or outlet which could be used for potable or domestic purposes and which is not supplied by the potable water system must be labeled in a conspicuous manner such as:

WATER UNSAFE FOR DRINKING

The minimum acceptable sign shall have black letters at least one inch (1") high located on a red background. Color-coding of pipelines, in accordance with Occupational Safety and Health Act (OSHA) guidelines, shall be required in locations where in the judgment of the Town of Estill Springs, such coding is necessary to identify and protect the potable water supply. (Ord. #11-387, Oct. 2011)

18-311. Statement required. Any person whose premises are supplied with water from the public water system, and who also has on the same premises a well or other separate source of water supply, or who stores water in an uncovered or unsanitary storage reservoir from which the water is circulated through a piping system, shall file with the Town of Estill Springs a statement of the nonexistence of unapproved or unauthorized cross-connections, auxiliary intakes, bypasses or interconnections. Such statement shall contain an agreement that no cross-connections, auxiliary intakes, bypasses or interconnections will be permitted upon the premises. Such statement shall also include the location of all additional water sources utilized on the premises and how they are used. Maximum backflow protection shall be required on all public water sources supplied to the premises. (Ord. #11-387, Oct. 2011)

18-312. Penalty; discontinuance of water supply. (1) Any person who neglects or refuses to comply with any of the provisions of this ordinance may be deemed guilty of a misdemeanor and subject to a fine.

(2) Independent of and in addition to any fines or penalties imposed, the manager may discontinue the public water supply service to 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 eliminated. (Ord. #11-387, Oct. 2011)

18-313. Provision applicable. (1) The requirements contained in this ordinance shall apply to all premises served by the Town of Estill Springs and are hereby made part of the conditions required to be met for the Town of Estill Springs to provide water services to any premises. The provisions of this ordinance shall be rigidly enforced since it is essential for the protection of the public water distribution system against the entrance of contamination. Any person aggrieved by the action of the ordinance is entitled to a due process hearing upon timely request.

(2) All ordinances and parts of ordinances in conflict with this ordinance shall be hereby repealed; and that this ordinance shall take effect from and after its passage the welfare of the Town of Estill Springs requiring it. (Ord. #11-387, Oct. 2011)