No. _____

ORDINANCE TO AMEND CHAPTER 17 OF THE GALLATIN MUNICIPAL CODE BY REPLACING SECTIONS 17-86 THROUGH 17-99

BE IT ORDAINED by the City of Gallatin, Tennessee that Sections 17-86 through 17-95 of Chapter 17, Gallatin Municipal Code are hereby deleted in their entirety and replaced with the following:

Sec. 17-86. *Purpose and Policy.*

This ordinance sets forth uniform requirements for the protection of the public water system for the City of Gallatin, Tennessee from possible contamination, and enable the City to comply with all applicable local, State and Federal laws, regulations, standards or requirements, including the Safe Drinking Water Act of 1974 (42 United States Code 300f et. seq. Public Law 93-523) and the Rules and Regulations for Public Water Systems and Drinking Water Quality issued by the Tennessee Department of Environment and Conservation, Division of Water Supply.

Sec. 17-87. *Objectives.*

The objectives of this ordinance are to:

(1) To protect the public potable water system of Gallatin, Tennessee 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;

(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.

Sec. 17-88. *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 approved air-gap separation shall be at least twice the inside diameter of the water supply line, but in no case less than two (2") inches.

(2) **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.

(3) **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) **Department** shall mean the Gallatin Water Department.

(10) **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.

(11) **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.

(12) **Fire protection systems** shall be classified in six different classes in accordance with ***AWWA Manual M14 - Second Edition 1990***. The six 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 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 1700 ft. 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.

(13) **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.

(14) **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.

(15) **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.

(17) **Public water supply** shall mean the Gallatin waterworks system, which furnishes potable water to the City for general use and which is recognized as the public water supply by the Tennessee Department of Environment and Conservation.

(18) **Reduced pressure principle backflow prevention assembly** shall mean an assembly consisting of two (2) independently operating approved check valves with an automatically operating differential relief valve located between the two 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.

(19) **Superintendent** shall mean the Superintendent of Public Utilities for the City of Gallatin or his duly authorized deputy, agent or representative.

(20) **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 production, treatment, storage, and distribution of water; and shall include all those facilities of the water system under the complete control of the water department, 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 water department distribution system that are utilized in conveying domestic water to points of use.

Sec. 17-89. *Compliance with T.C.A.*

The Department 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 City of Gallatin shall comply with Sections 68-221-701 through 68-221-720 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.

Sec. 17-90. *Regulated.*

(1) No water service connection to any premises shall be installed or maintained by the Gallatin Water Department 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 water department if a backflow prevention assembly required by this ordinance is not installed, tested, and/or maintained; or if it is found that a backflow prevention assembly 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 Superintendent of Public Utilities.

(3) If, in the judgment of the Superintendent or his designated agent, an approved backflow prevention assembly is required at the City's water service connection to a customer's premises, or at any point(s) within the premises, to protect the potable

water supply, the Department shall compel the installation, testing and maintenance of the required backflow prevention assembly(s) at the customer's expense.

(4) An approved backflow prevention assembly 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 Superintendent or his designated agent shall inspect the site and/or review plans, as necessary, in order to assess the degree of hazard and to determine the type of backflow prevention assembly, if any, that will be required, and to notify the owners of the required assembly and installation criteria. All required assemblies shall be installed and operational prior to the initiation of water service.

(6) For existing premises, personnel from the Gallatin Water Department shall conduct inspections and evaluations, as necessary, and shall require correction of violations in accordance with the provisions of this ordinance.

Sec. 17-91. *Permit Required.*

(1) New Installations.

No installation, alteration, or change shall be made of any backflow prevention assembly connected to the public water supply for water service, fire protection or any other purpose without first securing a suitable plumbing permit from the Gallatin Codes Department (where appropriate) and/or approval from the Gallatin Fire Official (where appropriate). A copy of the plumbing permit (where applicable) shall be displayed in a conspicuous place at the job site at all times from the time of issuance until the final inspection. All newly installed devices shall be inspected and tested by the Department after installation, alteration, or change and prior to the initiation of water service.

(2) Existing Installations.

No alteration, repair, or change shall be made of any existing backflow prevention assembly connected to the public water supply for water service, fire protection or any other purpose without first securing the appropriate permits and approvals. All existing devices shall be inspected and tested by the Department after alteration,

repair, or change.

Sec. 17-92. *Inspections.*

(1) The Superintendent 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 Department in accordance with guidelines acceptable to the Tennessee Department of Environment and Conservation.

(2) Right of Entry for Inspections. The Superintendent or his authorized representative shall have the right to enter, at any reasonable time, any property served by a connection to the Gallatin 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 assemblies. 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.

Sec. 17-93. *Correction of Violations.*

(1) Any person found to have cross connections, auxiliary intakes, bypasses or interconnections in violation of the provisions of the ordinance shall be allowed a reasonable time within which to comply with the provisions of this ordinance. After a thorough investigation of the existing conditions and an appraisal of the time required to complete the work, an appropriate amount of time shall be assigned by the Superintendent or his representative, 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 Department shall require that immediate corrective action 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 hazard to the public health; and may follow disconnection when the risk to the public health and safety, in the opinion of the Superintendent, 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, Section 68-221-711, within the time limits established by the Superintendent or his representative, shall be grounds for denial of water service. If proper protection has not been provided after a reasonable time (in no case greater than ninety (90) days), the Superintendent 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 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 Superintendent, warrants disconnection prior to a due process hearing.

Sec. 17-94. *Required Assemblies.*

(1) Where the nature of the use of water supplied to a premise by the Gallatin water system is such that it is deemed:

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 Department 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 premise 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;

f. The plumbing from a private well enters the premises served by the public water system, the Department shall require the use of an approved protective assembly on the water service line serving the premises to assure that any contamination that may originate in the customer's premises is contained therein.

(2) The protective assemblies shall be of the type approved by the Tennessee Department of Environment and Conservation and the Department and included on the most current listing of "Approved Backflow Prevention Assemblies. The method of installation of backflow prevention assemblies shall be approved by the Department prior to installation and shall comply with the criteria set forth in this ordinance. The installation and maintenance of backflow prevention assemblies shall be at the expense of the owner or occupant of the premises.

(3) Applications requiring backflow prevention assemblies shall include, but shall not be limited to, domestic water service and/or fire flow connections for all commercial and educational buildings, construction sites, all industrial, institutional and 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.

a. Class 1, Class 2 and Class 3 fire protection systems shall generally require a double check valve assembly; except 1) a double check detector assembly shall be required where a hydrant or other point of use exists on the system; or 2) a reduced pressure backflow prevention assembly shall be required where:
   i. Underground fire sprinkler lines are parallel to and within ten (10) feet horizontally of pipes carrying sewage or significantly toxic materials;
   ii. Premises have unusually complex piping systems;
   iii. 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 assemblies.

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 assembly shall be required.

(4) The Superintendent of his representative may require additional and/or internal

backflow prevention assemblies wherein it is deemed necessary to protect potable water supplies within the premises.

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

a. All required assemblies shall be installed in accordance with the provisions of this ordinance, by a person certified by the Tennessee Department of Environment and Conservation, Division of Drinking Water Supply. Only licensed sprinkler contractors may install or repair backflow prevention assemblies on fire protection systems.

b. All assemblies 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 assembly. All fittings shall be of brass construction, unless otherwise approved by the Superintendent, and shall permit direct connection to department test equipment.

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

d. All assemblies shall be placed in the upright position in a horizontal run of pipe, unless the assembly is approved for vertical installation.

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

f. Reduced Pressure Backflow Prevention assemblies shall be located a minimum of twelve (12") inches plus the nominal diameter of the assembly above either; 1) the floor, 2) the top of opening(s) in the enclosure or 3) maximum flood level, which ever is higher. Maximum height above the floor surface shall not exceed sixty (60") inches.

g. Clearance from wall surfaces or other obstructions shall be at least six (6") inches. Assemblies located in non-removable enclosures shall have at least twenty-four (24") inches of clearance on each side of the assembly for testing and repairs.

h. Assemblies 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 (1") inch.
j. An approved strainer shall be installed immediately upstream of the backflow prevention assembly, except in the case of a fire protection system.
k. Assemblies shall be located in an area free from submergence or flood potential, therefore below grade pits or vaults are prohibited.
l. All assemblies shall be adequately supported to prevent sagging.
m. Adequate drainage shall be provided for all assemblies. Reduced Pressure Backflow Prevention assemblies shall be drained to the outside when ever possible.
n. 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.
o. Enclosures for outside installations shall meet the requirements of ASSE 1060, The Standard for Outdoor Enclosures for Backflow Prevention Assemblies.
p. Where the use of water is critical to the continuance of normal operations or the protection of life, property or equipment, duplicate backflow prevention assemblies shall be provided to avoid the necessity of discontinuing water service to test or repair the protective assembly. Where it is found that only one assembly has been installed and the continuance of service is critical, the Superintendent 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 assembly. In such cases the Superintendent may require the installation of a duplicate assembly.
q. The Superintendent shall require the occupant of the premises to keep any backflow prevention assemblies working properly, and to make all indicated repairs promptly (in no case greater than ninety (90) days). Repairs shall be made by qualified personnel, possessing valid certification from the Tennessee Department of Environment and Conservation, Division of Water Supply, acceptable to the Superintendent. Expense of such repairs shall be borne by the

owner or occupant of the premises. The failure to maintain a backflow prevention assembly in proper working condition shall be grounds for discontinuance of water service to a premise. Likewise the removal, bypassing or alteration of a backflow prevention assembly or the installation thereof, so as to render an assembly 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 Superintendent.

(6) Testing of Assemblies. Assemblies shall be tested annually by the Department by a qualified person possessing valid certification from the Tennessee Department of Environment and Conservation, Division of Water Supply for the testing of such assemblies. Testing of internal assemblies shall be the responsibility of the customer. Records of all installations and repairs shall be submitted to the Department upon completion. Personnel of the Gallatin Water Department shall have the right to inspect and/or test an assembly whenever deemed necessary by the Superintendent. Water service shall not be disrupted to test an assembly without the knowledge of the occupant of the premises. All testing and inspection services are to be at the expense of the owner or occupant of the premises.

Sec. 17-95. *Non-potable Supplies.*

The potable water supply made available to a premises served by the public water system shall be protected from 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 (1") inch high located on a red background. Color coding of pipelines, in accordance with Occupational Safety and Health Act guidelines, shall be required in locations where in the judgment of the Superintendent, such coding is necessary to identify and protect the potable water supply.

Sec. 17-96. *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 Department 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.

Sec. 17-97. *Fees.*

A fee shall be assessed for all backflow prevention assemblies requiring inspection or testing, as well as for the disconnection of water service for non-compliance with these provisions. The amount of these fees shall be set and adjusted by the City Council based on the recommendations of the Superintendent to reflect the cost of providing an effective cross connection control program. The fees shall be assessed each time a device is installed, tested or inspected; or when water service is disconnected. Where repeated inspections are required to correct violations or deficiencies, the fee shall be assessed each time the inspection is repeated. The fees assessed shall be as follows:

1) Installation/Inspection/Testing Fee $40.00 (per device)
2) Service Disconnection $25.00

Sec. 17-98. *Penalty; Discontinuance of water supply.*

(1) Any person who neglects or refuses to comply with any of the provisions of this ordinance shall be deemed guilty of a misdemeanor and subject to a fine of up to $500.00 on the first offense and $1,000.00 for each offense thereafter within a five year period. Each day of continued violation after conviction shall constitute a separate offense.

(2) Independent of and in addition to any fines or penalties imposed, the Department

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.

Sec. 17-99. *Provision Applicable.*

The requirements contained in this ordinance shall apply to all premises served by the Gallatin public water system whether located inside or outside the corporate limits and is hereby made part of the conditions required to be met for the Gallatin Water Department 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 Superintendent is entitled to a due process hearing upon timely request.

BE IT FURTHER ORDAINED that this ordinance shall take effect from and after its final passage, the public welfare requiring it.

PASSED FIRST READING: _____, 2006

PASSED SECOND READING: _____, 2006

_____

MAYOR DON WRIGHT

ATTEST:

_____

CONNIE KITTRELL

CITY RECORDER

APPROVED AS TO FORM:

_____

JOE THOMPSON

CITY ATTORNEY