

ORDINANCE NO. 3-2005

AN ORDINANCE PROVIDING FOR A CITY WATER SYSTEM CROSS CONNECTION CONTROL PLAN; PROVIDING FOR PURPOSE AND INTENT; PROVIDING DEFINITIONS; PROVIDING FOR CUSTOMER'S WATER SYSTEM TO BE OPEN FOR INSPECTION; PROVIDING FOR BACKFLOW PREVENTION DEVICES TO BE USED BASED ON HAZARD CRITERIA; PROVIDING FOR TESTING OF BACKFLOW PREVENTION DEVICES; PROVIDING FOR ADMINISTRATION OF THE PLAN; PROVIDING FOR PERMITS AND FEES; PROVIDING FOR ENFORCEMENT; PROVIDING FOR LIBERAL CONSTRUCTION; PROVIDING FOR SEVERABILITY, AND PROVIDING FOR THE EFFECTIVE DATE.

BE IT ENACTED BY THE CITY COMMISSION OF THE CITY OF MULBERRY, FLORIDA;

Section 1. Purpose, Intent & Findings.

- (a) Improperly protected user systems expose the public potable water supply to Contamination which could be hazardous to the public health and safety.
- (b) The enactment of this Ordinance is necessary and desirable to protect and promote the public health, safety and welfare and is in the best interests of the citizens of the city.
- (c) The enactment of this Ordinance is in accordance with section 62-555.360, Florida Administrative Code, as amended from time-to-time, which provides in part: "Community water systems shall establish a routine Cross Connection control program for the purpose of detecting and preventing Cross Connections that create or have the potential to create an imminent and substantial danger to public health." Such program shall be developed using accepted practices of the American Water Works Associations ("AWWA") guidelines as set forth in AWWA. manuals M14, Backflow Prevention and Cross Connection Control, and Cross Connections and Backflow Prevention, second edition (or later versions Approved by DEP), for detection and elimination of prohibited Cross Connections, and identification and isolation of conditions which create or may create a danger to public health by use of Backflow Prevention Devices.

Section 2. Definitions. The following terms and phrases, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

- (a) "AIR GAP" shall mean unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet supplying water to a tank, plumbing fixture, or other device and the flood level rim of such vessel. An Approved air gap shall be at least double the diameter of the supply pipe, measured vertically, above the top of the

rim of the vessel and, in no case, less than 1 inch. When an air gap is used at the water service connection to prevent the Contamination or pollution of the public potable water system, an emergency bypass shall be installed in the bypass system which shall include an Approved Backflow Prevention Device.

(b) "APPROVED" shall mean accepted by the Director as meeting an applicable specification or requirements stated or cited in this Ordinance or as suited for the proposed use.

(c) "AUXILIARY WATER SUPPLY" shall mean any water supply on or available to the premises other than the City's Approved public potable water supply. These auxiliary waters may include without limitation, pools, wells, lakes, ponds, rivers, streams, or the like or used waters or industrial fluids. These waters shall include without limitation, waters used for fountains, or other ornamental uses.

(d) "BACKFLOW" shall mean the flow of water or other liquid, mixture, or substance under pressure into the distributing pipes of a potable water supply system from any source other than its intended source.

(e) "BACKFLOW PREVENTION DEVICE" shall mean a mechanical assembly that meets those standards as set forth by the American Waterworks Association ("AWWA"), the American Society of Sanitary Engineers, ("ASSE"), and the Foundation for Cross Connection Control and Hydraulic Research ("FCCC"), that has been approved for the prevention of Backflow, as back pressure and Backsiphonage by the FCCC, and is published in the FCCC's List of Approved Backflow Prevention Devices.

(f) "BACKSIPHONAGE" shall mean the flow of water or other liquid, mixture, or substance into the distributing pipes of a potable water supply system from any source other than its intended source caused by the sudden reduction of pressure in the potable water supply system.

(g) "CONTAMINATION" shall mean an impairment of the quality of potable water by sewage, industrial fluids, waste liquids, compounds, or other materials to a degree which creates a potential or actual hazard to the public health through poisoning or through the spread of disease.

(h) "CROSS CONNECTION" shall mean any physical connection or arrangement of piping or fixtures between two (2) otherwise separate piping systems, one of which contains potable water and the other, nonpotable water or industrial fluids of questionable safety, through which or because of which Backflow or Backsiphonage may occur into the potable water system.

A water service connection between a public potable water distribution system and a customer's water distribution system which is cross connected to a contaminated fixture, industrial fluid system, or with potentially contaminated supply or auxiliary water system constitutes one type of Cross Connection. Other types of Cross Connections include connectors such as swing connections, removable sections, 4-way plug valves, spools, dummy sections of pipe, swivel or changeover devices, sliding multiport tubes, solid connections, and the like. For the purpose of this definition, fire lines and fire sprinkler system connections are not Cross Connections.

(i) "DOUBLE CHECK VALVE BACKFLOW PREVENTION DEVICE ("DCV")" shall mean an assembly of two independently operating Approved check valves with tightly closing shutoff valves on each side of the check valves, plus properly located test cocks for the testing of each check valve. The entire assembly shall meet the design and performance specifications and approval of a recognized and city-approved testing agency for Backflow Prevention Devices. To be Approved, these must be readily accessible for in-line maintenance and testing.

(j) "DIRECTOR" mean the City of Mulberry Public Works Director or his/her designee.

(k) "HAZARD, DEGREE OF," shall mean an evaluation of the potential risk to public health and the adverse effect of the hazard upon the potable water system and shall include:

(1) "HAZARD, HEALTH" shall mean any condition, device, or practice in the water supply system and its operation which could create or, in the judgment of the Director, may create a danger to the health and well-being of water consumers.

(2) "HAZARD, PLUMBING" shall mean a plumbing-type Cross Connection at a premises with a service connection that has not been properly protected by a vacuum breaker, Air Gap Separation, or Backflow Prevention Device. Unprotected plumbing-type Cross Connections are considered to be a health hazard.

(3) "HAZARD, POLLUTIONAL," shall mean an actual or potential threat to the physical properties of the City's water system or to the potability of the City's water supply, or which would constitute a nuisance or be aesthetically objectionable or could cause damage to the system or its appurtenances..

(4) "HAZARD, SYSTEM," shall mean an actual or potential threat of severe damage to the physical properties of the City's potable water system or the consumer's potable

water system or of a pollutant or contaminant which would have a protracted effect on the quality of the potable water in the system.

(l) "INDUSTRIAL FLUIDS SYSTEM" shall mean any system containing a fluid or solution which may be chemically, biologically, or otherwise contaminated or polluted in a form or concentration such as would constitute a health, system, pollutional, or plumbing hazard if introduced into the City water supply. This may include, but shall not be limited to: polluted or contaminated waters; all types of process waters and used waters originating from the public potable water system which may have deteriorated in sanitary quality; chemicals in fluid form; plating acids and alkalis; circulated cooling waters connected to an open cooling tower that are chemically or biologically treated or stabilized with toxic substances; contaminated natural waters such as from wells, springs, streams, rivers, bays, harbors, irrigation canals or systems, and the like; and oils, gases, glycerin, paraffins, caustic and acid solutions, and other liquid and gaseous fluids used in industrial or other purposes or for firefighting purposes.

(m) "POLLUTION" shall mean the presence of any foreign substance (organic, inorganic, or biological) in water which tends to degrade its quality so as to constitute a hazard or impair the usefulness or quality of the water to a degree which does not create an actual hazard to the public health but which does adversely and reasonably affect such waters for domestic use.

"Pressure-type vacuum breaker" shall mean an assembly used to isolate entire irrigation lines from potable water systems. It has the ability to withstand supply pressure for long periods and to prevent Backflow of toxic and nontoxic water into the potable water system in Backsiphonage conditions. To be Approved, these devices must be readily accessible for in-line maintenance and testing.

(n) "PREMISES" shall mean any property receiving potable water through a service connection.

(o) "REDUCED PRESSURE ZONE BACKFLOW PREVENTION DEVICE ("RPZ")" shall mean an assembly of two independently operating check valves with an automatically operating differential relief valve between the two check valves, tightly closing shutoff valves on either side of the check valves, plus properly located test cocks for the testing of the check and relief valves. The entire assembly shall meet the design and performance specifications and approval of a recognized and city-Approved testing agency for Backflow Prevention Devices. The device shall operate to maintain the pressure in the zone between the two check valves at a level less than the pressure on the public water supply side of the device. At cessation of normal flow the pressure between the two check valves shall be less than the pressure on the public water supply system side of the device. In case of leakage of either of the

check valves, the differential relief valve shall operate to maintain the reduced pressure in the zone between the check valves by discharging to the atmosphere. When the inlet pressure is two pounds per square inch or less, the relief valve shall open to the atmosphere. To be Approved, these devices must be readily accessible for in-line maintenance and testing and be installed in a location where no part of the device will be submerged.

(p) "WATER, NONPOTABLE," shall mean water which is not safe for human consumption or which is of questionable potability.

(q) "WATER, POTABLE," shall mean any water which, according to recognized standards, is safe for human consumption.

(r) "WATER SERVICE CONNECTION" shall mean the terminal end of a water service connection from the public potable water system; that is, where the City loses jurisdiction and sanitary control over the water at its point of delivery to the customer's water system. If a meter is installed at the end of the water service connection, the water service connection shall mean the downstream end of the meter. There should be no unprotected takeoffs from the service line ahead of any meter or Backflow Prevention Device located at the point of delivery to the customer's water system. "Water service connection" shall also include water service connection from a fire hydrant and all other temporary or emergency water service connections from the public potable water system.

Section 3. Cross Connections prohibited.

Upon discovery of a Cross Connection, City employees shall either eliminate the Cross Connection by installation of an appropriate Backflow Prevention Device pursuant to this Ordinance, or shall promptly discontinue service until the contaminant source is eliminated.

Section 4. Backflow Prevention Devices.

(a) No water service connection shall be installed or maintained unless the water supply is protected as required by all state law and applicable regulations including Florida Department of Environmental Protection ("DEP") regulations, and this Ordinance. Service of water to any water service connection shall be discontinued by the City if a Backflow Prevention Device required by this article is not installed, tested, and maintained as required by this Ordinance, or if it is found that a Backflow Prevention Device has been removed, bypassed, or if an unprotected Cross Connection exists at the water service connection. Service will not be restored until such conditions or defects are corrected.

(b) The customer's premises should be open for inspection at all reasonable times to authorized representatives of the public works department to determine whether Cross Connections or other structural or sanitary hazards, including violations of this article, exist. When such a condition becomes known, the public utilities director shall deny or immediately discontinue service to the water service connection by providing for a physical break in the service line until the customer has corrected the condition in conformance with state and city laws relating to plumbing and water supplies and the regulations adopted pursuant thereto. This subsection does not authorize entry onto private property with permission of the owner.

(c) An Approved Backflow Prevention Device shall be installed on each service line to a customer's premises at or near the property line and, in all cases, before the first branch line leading off the service line, wherever the following conditions exist:

(1) In the case of water service connection having an Auxiliary Water Supply. The City's water system shall be protected against Backflow from the water service connection by installing a Backflow Prevention Device determined by the Director to be appropriate to the degree of hazard.

(2) All industrial and commercial uses shall install a Backflow Prevention Device determined by the Director to be appropriate to the degree of hazard.

(d) In the case of water service connection having internal Cross Connections that cannot be permanently corrected and controlled, intricate plumbing and piping arrangements or where entry to all portions of the premises is not readily accessible for inspection purposes making it impracticable or impossible to ascertain whether or not dangerous Cross Connections exist, the public water system shall be protected against Backflow from the water service connection by installing a Backflow Prevention Device in the service line. The type of protective device required shall depend upon the degree of hazard which exists, but shall include at a minimum, a Double Check Valve Backflow Prevention Device.

(e) In the case of any water service connection where there is water or some substance that would be objectionable but not hazardous to health if introduced into the City's water system, the public water system shall be protected by an Approved Double Check Valve Backflow Prevention Device.

(f) In the case of any water service connection where there is any material dangerous to health which is handled in such a fashion as to create an actual or potential hazard to the public water system, the City's water system shall be protected by an Approved Air Gap Separation or an Approved Reduced Pressure Zone Backflow Prevention Device, whichever is

determined by the Director to be appropriate under the circumstances..

(g) In the case of any water service connection where there are uncontrolled Cross Connections, either actual or potential, the public water system shall be protected by an Approved Air Gap Separation or an Approved Reduced Pressure Zone Backflow Prevention Device at the water service connection, whichever is determined by the Director to be appropriate under the circumstances..

(h) In the case of any water service connection where, because of security requirements or other prohibitions or restrictions, it is impossible or impractical to make a complete in-plant Cross Connection survey, the public water system shall be protected against Backflow or Backsiphonage from the water service connection by the installation of a Backflow Prevention Device in the service line. In this case, maximum protection will be required; that is, an Approved Air Gap Separation or an Approved Reduced Pressure Zone Backflow Prevention Device shall be installed on each water service connection to the premises, whichever is determined by the Director to be appropriate under the circumstances. .

(i) An Approved Backflow Prevention Device of the type designated shall be installed on each water service connection to the following types of facilities. Backflow Prevention Devices connected to fire protection systems and Backflow Prevention Devices installed as a result of the water service connection being connected to the city's reclaimed water supply, shall be owned, tested and maintained by the city. All other Backflow Prevention Devices will be owned, tested and maintained by the customer.

This list is presented as a guideline and should not be construed as being complete. Abbreviations are as follows:

TABLE INSET:

A.G.	=	Air Gap Separation
R.P.	=	Reduced Pressure Zone Backflow Prevention Device
D.C.V.A.	=	Double Check Valve Backflow Prevention Device
P.V.B.	=	Pressure vacuum breaker

A.V.B.	=	Atmospheric vacuum breaker
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TABLE INSET:

Type of Facility	Minimum Type of Protection
Breweries, distilleries, bottling plants	R.P.
Carwash with recycling system and/or wax eductor	R.P.
Chemical plants	R.P.
Dairies	R.P.
Dentist offices	R.P.
Fertilizer plants	R.P.
Film laboratory or processing plants	R.P.
Food or beverage plants	R.P.
Hospitals, clinics, medical buildings	R.P. (Parallel)
Irrigation systems	R.P. or P.V.B.
Laboratories	R.P.
Laundries and drycleaning plants	R.P.

Machine tool plants (health or system hazard)	R.P.
Machine tool plants (pollutional hazard)	R.P.
Metal plating plants	R.P.
Metal processing plants (health or system hazard)	R.P.
Metal processing plants (pollutional hazard)	R.P.
Morgues, mortuaries or funeral homes	R.P.
Nursing homes	R.P.
Packinghouses or rendering plants	R.P.
Paper products plants	R.P.
Pesticides (exterminating companies)	A.G.
Petroleum processing plants	R.P.
Petroleum storage yards (health or system hazard)	R.P.
Petroleum storage yards (pollutional hazard)	R.P.
Pharmaceutical or cosmetic plants	R.P.
Piers, docks or waterfront facilities	R.P.
Power plants	R.P.

Radioactive material plants	R.P.
Restaurants	R.P.
Sand and gravel plants	R.P.
Schools	R.P.
Sewage pumping stations	R.P.
Sewage treatment plants	R.P.
Swimming pools with piped fill line	A.G. at pool
Tall buildings over 3 stories	R.P.
Veterinary establishments	R.P.

(j) Backflow Prevention Devices shall only be installed by licensed plumbers or other licensed contractors Approved by the state and the City to perform such work.

(k) The following information shall be forwarded to the Cross Connection control section of the public works department by the customer or installed within five (5) days after the installation of all Reduced Pressure Zone backflow preventers (RP), Double Check Valve Backflow Prevention Device and pressure vacuum breakers (PVB):

- (1) Service address where device is located;
- (2) Owner;
- (3) Description of device's location;
- (4) Date of installation;
- (5) Type of device;
- (6) Manufacturer;
- (7) Model number; and
- (8) Serial number.

(l) The AWWA and FCCC and HR standards and specifications have been adopted by the Director. Final approval shall be evidenced by a certificate of approval issued by an Approved testing laboratory certifying full compliance with the AWWA standards and FCCC and HR specifications.

(m) It shall be the duty of the customer-user at any water service connection where Backflow Prevention Devices are installed to have certified inspections and operational tests made at least once per year. In those instances where the director deems the hazard to be great enough, he may require certified inspections at more frequent intervals. These inspections and tests shall be at the expense of the customer and shall be performed by the device manufacturer's representative or by a certified tester Approved by the Director . Certified test results shall be forwarded to the department within seven (7) calendar days following the completion of the testing procedure. All repairs for Backflow Prevention Devices which are required to be tested shall be conducted by certified Backflow Prevention Device technicians or other persons Approved by the department to make such repairs.

(n) These devices shall be repaired, overhauled, or replaced at the expense of the customer-user whenever devices are found to be defective, and shall be included on the water bill subject to disconnection for nonpayment. Records of such tests, repairs, and overhauls shall be submitted to the Director.

(o) All presently installed Backflow Prevention Devices which do not meet the requirements of this section but were Approved devices for the purposes described herein at the time of installation and which have been properly maintained shall, except for the inspection maintenance requirements, be excluded from the requirements of these rules so long as the Director is assured that they will satisfactorily protect the public potable water supply system. Whenever the existing device is moved from the present location or requires more than minimum maintenance or when the Director finds that the maintenance constitutes a hazard to health, the unit shall be replaced by a Backflow Prevention Device meeting the requirements of this section.

Section 5. Administration.

(a) The public works department shall supervise and monitor the protection of the public potable water distribution system from Contamination or pollution due to the Backflow or Backsiphonage of contaminants or pollutants through the water service connection.

(b) If, in the judgment of the department, an Approved Backflow Prevention Device is required at a water service connection for the safety of the City's water system, the Director shall

give notice in writing to the customer to install such an Approved Backflow Prevention Device at each water service connection to his premises. The customer shall immediately install such Approved device at his own expense. The failure, refusal, or inability on the part of the customer to install the device immediately shall constitute a ground for discontinuing water service to the water service connection until such device has been properly installed.

Section 6. Fees and permits.

The city shall identify those customers required to install Backflow Prevention Devices for the safety of the City's water system based on degree of hazard. These users shall whose uses pose significant hazards to the City's system, or who, because of previous failure to inspect, test or repair devices in the past or are otherwise deemed by the City Manager as risks for future noncompliance regardless of degree of hazard, shall be required to obtain an annual permit from the utilities department. Permit fees will be determined annually based on project cost administration, including without limitation, department inspections and recordkeeping. Annual permits shall be issued upon receipt by the utilities department of the certified inspections and operational test results.

Section 7. Notice of violation; failure to remedy.

The Director shall notify the owner or authorized agent of the owner of the water service connection in which there is found a violation of this article of such violation. The director shall set a reasonable time for the owner to have the violation removed or corrected (30 days maximum or as determined by degree of hazard). On failure of the owner to have the defect corrected by the end of a specified time interval, the director may cause the water service to the water service connection to be terminated and/or recommend such additional fines or penalties or legal action to be invoked as are provided in this Ordinance

Section 8. Penalties.

(a) **Criminal Enforcement.** Any person who knowingly fails or refuses to obey or comply with or willfully violates any of the provisions of this article or any lawful rule or regulation promulgated hereunder or any lawful order of the director issued pursuant to the provisions of this article shall, upon conviction of such offense, be subject to punishment as provided by law. Each day during which the knowing or willful failure or refusal to comply with this article continues shall constitute a separate offense.

(b) **Civil Remedies/Penalties.** The city commission may have recourse to such remedies in law and in equity as may be necessary to ensure compliance with the provisions of

this division, including without limitation enforcement under Chapter 162 F.S.,. If enforcement is made by citation and court, this Ordinance shall have the following penalties levels and corresponding fines assigned for the citation:

- (1) Failure to repair inspect and/or test annually, residential -----**Class 1.**
- (2) Failure to repair inspect and/or test annually, commercial-----**Class 2.**
- (3) Failure to repair inspect and/or test annually, industrial-----**Class 4.**
- (4) All other violations-----**Class 4.**

The City may also concurrently seek injunctive relief to enjoin any person, association, firm, corporation or other legal entity from violating Ordinance and such damages, fines and penalties as may be sustained by virtue of a violation of this Ordinance, together with all costs and expenses and attorney fees involved in the case.

Section 9 Liberal Construction.

This article shall be liberally construed so as to effectively carry out the purposes hereof in the interest of the public health, safety and general welfare. This Ordinance is not intended nor shall it be construed to supersede or conflict with any statutory provisions, rules or regulations of the state, but shall be construed as implementing and assisting the enforcement thereof.

Section 10. Severability.

Should any section or provision of this Ordinance or any portion thereof, the deletion of which would not adversely affect (in the general sense) the remainder, be declared by a court of competent jurisdiction to be invalid, such decision shall not affect the validity of the remainder, as a whole or any part thereof, other than the part declared to be invalid.

Section 11. Effective Date.

This ordinance shall take effect immediately upon its final passage.

This ordinance was read for the first time at the Regular Meeting of the City Commission on the ____ day of _____, _____. where it was voted on by members of the City Commission as follows:

Yeas _____ Nays _____ Absent _____

This ordinance was read for a second and final time at the _____ Meeting of the City Commission on the _____ day of _____, _____, where it was voted on by members of the City Commission as follows:

Yeas _____ Nays _____ Absent _____

Mayor, City of Mulberry, Florida

ATTEST:

City Clerk

APPROVED AS TO CORRECTNESS
AND FORM.

City Attorney