



ORDINANCE NO. 1959

AN ORDINANCE PROVIDING FOR THE CONTROL OF CROSS-CONNECTIONS  
IN ORDER TO PREVENT BACKFLOW AND PROTECT THE CITY'S WATER  
SUPPLY SYSTEM FROM CONTAMINATION

**WHEREAS**, the City of Trinidad's Water Department is a water activity enterprise of the City of Trinidad that operates and maintains a public water system for the use and benefit of the inhabitants of the City and other water users within its service area; and

**WHEREAS**, the federal Safe Drinking Water Act, codified as 42 USC § 300f, et seq., and the regulations promulgated with respect thereto, create a duty for federal, state and local authorities to do those things necessary to protect public water systems, such as the City's, from the entry of contaminants that could be harmful to the health of persons connected to and otherwise using such system; and

**WHEREAS**, federal law authorizes civil and criminal actions against persons, including governmental entities that operate water supply systems, that fail to comply with lawful orders issued pursuant to the Safe Drinking Water Act and associated regulations; and

**WHEREAS**, the State of Colorado has adopted a statute generally making it unlawful for any person, including local governments and the officials thereof, to willfully violate, disobey or disregard any public health law of the state (see § 25-1-114, C.R.S.); and

**WHEREAS**, in response to the federal mandate in the Safe Drinking Water Act, this Colorado statute specifically makes it unlawful for any person to make, install or maintain any cross-connection between a water system providing drinking water to the public and any pipe, plumbing fixture or water system which contains water of a quality below the minimum general standards for drinking water supplied to the public [§ 25-1-114(1)(h), C.R.S.]; and

**WHEREAS**, in addition to possible criminal penalties, Colorado law permits the institution of civil actions and the imposition of civil penalties against those who violate state public health standards and regulations (§ 25-1-114.1, C.R.S.); and

**WHEREAS**, the Colorado Primary Drinking Water Regulations, contained in Article 11 as it currently exists or as may be amended thereof, mandates that a public water system shall have no uncontrolled cross connections to pipes, fixtures or supplies that contain water not meeting minimum state standards for drinking water and also require all public water system operators to protect their water supply systems from contamination; and

**WHEREAS**, said regulations also enumerate four ways in which a supplier of water "shall protect the public water system," including:

- a. Identification of hazardous service connections;
- b. Requiring system users to install and maintain containment devices on

health hazard service connections;

c. Requiring that containment devices be approved by the water supplier prior to installation; and

d. Requiring that all containment devices be tested and maintained as necessary upon installation and at least annually thereafter, by a trained and certified cross-connection control technician as referenced in the Hazardous Cross Connection Section of the Colorado Primary Drinking Water Regulations; and

**WHEREAS**, in order to comply with the foregoing federal and state mandates, and more importantly to do what is necessary and prudent to protect the City's water supply system and the health and welfare of those connected to its system, the City Council of the City of Trinidad has determined that a cross-connection control ordinance, as hereinafter set forth, should be adopted and enforced.

**NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF TRINIDAD**, as follows:

Section 12-86 is hereby added to the City of Trinidad's Municipal Code to read as follows:

CHAPTER 12, ARTICLE 5  
BACKFLOW PREVENTION AND CROSS-CONNECTIONS

Sections:

12-86(1)	Definitions
12-86(2)	Requirements
12-86(3)	Compliance procedures
12-86(4)	Appeals
12-86(5)	Jurisdictional issues and conflicts
12-86(6)	Violation and Penalties

12-86

(1) Definitions

Unless the context specifically indicates otherwise, the meanings of terms used in this Chapter shall be as follows:

a. "Approved backflow prevention assembly" means a backflow prevention assembly described in Foundation for Cross-Connection Control and Hydraulic Research's (FCCC&HR) most current "list of approved backflow prevention assemblies" or American Society of Sanitary Engineers (ASSE).

b. "Backflow" means the undesirable reversal of the direction of flow of water or mixtures of water and other liquids, gases, or other substances into the distribution pipes of the potable water supply from any source(s) caused by backpressure and/or backsiphonage.

- c. "Backflow preventer" means a device designed to prevent backflow created by backpressure or backsiphonage.
- d. "Backpressure" means backflow caused by a pump, elevated tank, boiler or means that could create an elevated pressure within the nonpotable system greater than the supply pressure.
- e. "Backsiphonage" means the flow of water or other liquids, mixtures or substances into the distribution pipes of a potable water supply system from any source other than its intended source caused by negative or sub-atmospheric pressure in the potable water supply system.
- f. "Certified cross-connection control technician" means a person who has the responsibility for the testing, operation and maintenance of cross-connection control devices and is certified as specified in accordance with the provisions of Article 11 of the Colorado Primary Drinking Water Regulations.
- g. "Colorado Cross-Connection Control Manual" means the most recent edition of a manual that has been published by the state addressing cross-connection control practices which will be used as a guidance document for the utility in implementing a cross-connection control program as outlined in Section 12-86(2)
- h. "Containment" means the installation of an approved backflow prevention device, or method, on the water service line(s), so that water delivered to the service line cannot return to the City potable water distribution system due to any backpressure and/or backsiphonage condition which might arise.
- i. "Contamination" means an impairment of the quality of the potable water by sewage, industrial fluids or waste liquids, compounds or other materials to a degree which creates an actual hazard to the public health through poisoning or through the spread of disease.
- j. "Cross-connection" means any physical arrangement whereby a public water supply is connected, directly or indirectly, with any other water supply system, sewer, drain, conduit, pool, storage reservoir, plumbing fixture or other device which contains, or may contain, contaminated water, sewage or other waste or liquid of unknown or unsafe quality which may be capable of imparting contamination to the public water supply as a result of backflow. Bypass arrangements, jumper connections, removable sections, swivel or changeover devices, four-way valve connections, and other temporary or permanent devices through which, or because of which, backflow could occur are considered to be cross-connections.
- k. "City Manager" means the City Manager of the City of Trinidad or, if this person is not available, his or her subordinate designated by the City Manager in writing.

- l. "Hazard degree" means an evaluation of the potential risk to public health and the adverse effect of the hazard upon the potable water system.
- m. "Isolation" means a backflow device installed on a branch of the internal plumbing to protect the customer's water system.
- n. "Non-potable water" means water that is not safe for human consumption or that is of questionable quality.
- o. "Plumbing Codes" means the most recent edition of the plumbing codes that has been published by International Code Council and adopted by city ordinance.
- p. "Pollution" means the presence of any foreign substance (organic, inorganic, radiological or biological) in the water that may degrade the water quality so as to constitute a hazard or impair its usefulness.
- q. "Potable water" means water free from impurities in amounts sufficient to cause disease or harmful physiological effects. The bacteriological, chemical and radiological quality shall conform with State of Colorado Department of Public Health and Environment Primary Drinking Water Regulations.
- r. "Utility" means the City of Trinidad's Water Department, a water activity enterprise of the City of Trinidad.
- s. "Water service connection" means the customer's water service connection from the point of tap on the public potable water system; to the point where the service line enters the customer's structure (residential or business) including the customer's stop box or shut-off valve or meter, whichever comes first, from the utility water main. There shall 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. Service connection shall also include any other temporary or emergency water service connections from a fire hydrant or any connection to the public potable water system.

## (2) Requirements

### a. Implementation and Enforcement of a Cross-Connection Control Program

(I) The City Manager and/or his or her designee is vested with the authority and responsibility for implementing and enforcing an effective cross-connection control program in accordance with the provisions of this Chapter.

### b. Backflow Preventers Required At All Service Connections.

(I) The City Manager and/or his or her designee will identify those customers who are likely to have a cross connection and an approved backflow preventer shall be required to be installed at any uncontrolled water service connection for the safety and protection of the City's water supply system and water users connected to that system.

(II) Property owner's and/or Agent's of the property shall be required to obtain a Backflow Service Permit (BSP) prior to the installation of the backflow prevention device. The installation of the backflow preventer must be performed by a licensed plumber or certified cross connection control technician. The city reserves the right to impose a fee for the issuance of the Backflow Service Permit.

c. The City Manager and/or his or her designee shall have the authority to specify the type of backflow preventer to be installed at each service connection. The decision with respect to the type of backflow preventer that will be required in any specific situation shall be based upon:

(I) The degree of hazard posed by the facility connected or to be connected to the City water supply system.

(II) The degree of hazard shall be determined on a case-by-case basis, depending upon the circumstances of each particular case.

(III) In making determinations as to the degree of hazard and the type of device required, owners shall rely upon the latest published edition of the Colorado Cross-Connection Control Manual for guidance and may rely upon other generally accepted authorities, including but not limited to the official publications of the American Society of Sanitary Engineering and Section 608 of the International Plumbing Codes.

(IV) The City Manager and/or his or her designee may give notice in writing to the customer to install such an approved backflow prevention device at each service connection to the customer's premises.

d. Inspections and Testing Procedures

(I) The City Manager and/or his or her designee has the authority to inspect any system owned and maintained by a utility customer to determine the extent and degree of hazard.

e. The City Manager and/or his or her designee shall notify the utility customer/owner at any premises where containment backflow preventers are installed to have certified inspections and operational tests made upon installation of the containment device and at least once per year

thereafter.

(I) The City Manager and/or his or her designee may require certified tests at more frequent intervals if the potential hazard is deemed to be great enough. These inspections and tests shall be performed by a certified cross-connection control technician.

f. The City Manager and/or his or her designee reserves the right to inspect or require the inspection of installed backflow preventers at any time to ensure the devices are in proper working order. The devices shall be repaired, overhauled or replaced whenever they are found to be defective. These inspections, tests and repairs shall be at the owners' expense. Records of such tests, repairs and overhaul, including materials and parts changed, shall be filed with the City Manager's office within ten days of such activities. The Utility shall keep and maintain such records in accordance with the requirements of applicable law.

(I) Containment devices will be tested annually according to the Colorado Revised Statutes and Colorado Department of Public Health and Environment Primary Drinking Water Regulations.

(II) If such devices are allowed by the City Manager and/or his or her designee as an acceptable alternative to total containment, isolation devices used to isolate and lower the overall degree of hazard for a property will be tested on a schedule determined by the City Manager and/or his or her designee.

(III) Isolation devices used on lawn irrigation sprinkler devices will be tested upon installation, repair or relocation, but in any event no less often than once annually.

g. Policy

(I) No water service connection to any premises shall be installed or maintained unless the water supply is protected as required by Colorado Revised Statutes, the regulations of the Colorado Department of Public Health and Environment and by this Chapter.

(II) Water service to any premises shall be denied or discontinued, as the case may be, by the Utility if:

(A) A backflow preventer required by this Chapter is not installed within the time period specified; or

(B) An approved backflow preventer has been

removed or bypassed; or

(C) An unprotected cross-connection exists on the premises; or

(D) An approved backflow preventer is not maintained.

(III) Whenever service is denied or discontinued, it shall not be provided or restored until the condition or defect identified in subparagraph 12-86(2)(g)(II) has been corrected.

(IV) The customer's system shall be open for inspection at all reasonable times to authorized representatives of the City Manager and/or his or her designee to determine whether cross-connections or other structural or sanitary hazards, including violations exist.

(V) When, as a result of an inspection, a condition involving a violation results in a health or sanitary hazard is determined to exist, or a utility customer and/or owner fails to properly test, repair, or otherwise maintain a backflow preventer as required, the City Manager and/or his or her designee shall have the option of immediate discontinuance of water service to the premises until the condition has been corrected, or may specify a date for compliance after which time the City Manager and/or his or her designee may discontinue service until the customer has corrected the condition.

h. Installations of Backflow Prevention Devices

(I) At the customer's expense, backflow preventers shall be installed immediately downstream of the water service customer's water meter, whether the meter is a pit set or an interior set. In all cases, backflow preventers must be installed before the first branch line leading off the service line.

(II) With the City Manager and/or his or her designee approval, a backflow preventer may be installed to isolate a hazard and lower the degree of hazard for containment. Such approval shall not be given unless the City Manager and/or his or her designee is convinced that the use of the isolation device will pose no threat to the public water supply system.

(III) All backflow preventers shall be located and installed according to the manufacturer's specifications and in accordance with the Colorado Cross-Connection Control

Manual. The City Manager and/or his or her designee shall review and approve all plans as to the type, location and installation of backflow prevention devices.

(IV) Utility customers and/or owners shall be responsible for the design, installation and maintenance of properly sized and located drains and drain systems whenever the type of backflow preventer specified or approved by the City Manager and/or his or her designee requires a drain.

(V) Plans shall not be modified relative to the type, location or installation of any backflow preventer approved by the City Manager and/or his or her designee without the City Manager and/or his or her designee's prior knowledge and written authorization.

(VI) If the location or removal of the backflow preventer results in the meter becoming contaminated, the customer shall bear the cost of decontamination.

i. Device Testing Equipment

(I) The acceptability of any testing gauge or apparatus shall be determined by the City Manager and/or his or designee.

(II) Any testing gauge, apparatus or scientific instrument utilized for the testing of backflow prevention devices shall be checked for accuracy at least yearly and be in calibration as certified by the cross connection technicians who perform the testing. The City Manager and/or his or her designee may require written certificates or other proof of calibration for such items to be filed with the utility.

(III) At a minimum, all test gauges must meet ASSE-1064 Standards for Gauges.

(IV) All Certified Cross-Connection Technicians who perform work in the City shall obtain a contractor's license and file copies of their licenses.

j. Listings Identifying Approved Backflow Prevention Devices

(I) Any approved backflow prevention assembly required shall be of a type and size approved by the City Manager and/or his or her designee and listed in the FCCC & HR's List of Approved Backflow Prevention Assemblies, American Society of Sanitary Engineers (ASSE) Series 5000 and/or Colorado Plumbing Codes.

### (3) Compliance Procedures

#### a. Installation of Required Devices

(I) Upon completion of inspection of the premises, or, in the case of new construction, on review of the construction plans, the City Manager and/or his or her designee shall notify the owner in writing of the type of device that will be required at each service connection within the owner's facility.

(II) The owner shall, at its expense, purchase and install the device and any necessary plumbing or construction. Such plumbing and construction shall meet all provisions of the Colorado Cross-Connection Control Manual, Plumbing Codes and/or City of Trinidad design standards and construction specifications and must be inspected and approved by the City Manager and/or his or her designee. The device, including any device installed prior to the effective date of this ordinance, shall be the property of the owner.

#### b. Compliance Required

(I) The utility will take necessary action to ensure compliance with the Colorado Department of Health, Primary Drinking Water Regulations, 5 CCR 1003-1, and more specifically Article 11 thereof, and the Colorado Revised Statutes, Section 25-1-114, as amended.

(II) The owner of the premises is required to permit entry to the premises for inspection, testing and maintenance purposes at reasonable times. Failure to permit entry to the premises will result in the premises being regarded as a high hazard, and a reduced-pressure-principle device will be required to protect the City of Trinidad's water supply system.

(III) The owner is required to provide all necessary plumbing and construction needed for the installation of the device. Failure to provide such required plumbing and construction will result in action being taken as provided for in Section 12-86(6).

(IV) A member of the board of appeals or employee of the City of Trinidad charged with the enforcement of this code, while acting for the jurisdiction in good faith and without malice in the discharge of the duties required by this code or other pertinent law or ordinance, shall not thereby be rendered liable personally and is hereby relived from personal liability for any damage accruing to persons or property as a result of

any act or by reason of an act or omission in the discharge of official duties. Any suit instituted against an officer or employee because of an act performed by that officer or employee in the lawful discharge of duties and under the provision of this code shall be defended by a legal representative of the jurisdiction until the final termination of the proceedings. The City Manager or any subordinate shall not be liable for the cost in any action, suit or proceeding that is instituted in pursuance of the provisions of this code.

#### (4) Appeals

a. Any decision of the City Manager and/or his or her designee concerning the type of backflow preventer required with respect to any water service connection, may be appealed to the City of Trinidad Board of Building Code Appeals, provided the owner files a notice of appeal to the Office of the City Clerk within 15 days following the date upon issuance of the city's written notice.

b. The notice of appeal shall identify the property owner by name, mailing address, telephone number and email address, if any, and include the address of the owner's facility. In addition, the notice shall:

(I) Identify the City Manager and/or his or her designee's decision, which is being appealed; and

(II) Identify the type of backflow preventer that the owner believes should be installed at the owner's facility; and

(III) Include the owner's reasons for preferring such backflow preventer, instead of the backflow preventer designated by the City Manager and/or his or her designee, with or without written documentation supporting the owner's position.

c. After owner's and/or agent's filing of the notice of appeal, the City Clerk, by written notice specifying the date, time and place of the hearing, shall schedule a hearing. Such hearing shall be conducted within 20 days following the date upon which the notice of appeal was filed, unless the owner and the City Manager both agree to a later hearing date. At the hearing, the owner may present testimony, evidence and arguments in support of the owner's position and the City Manager and/or his or her designee may present testimony, evidence and arguments in support of the City Manager and/or his or her designee's decision.

d. The City Manager's and/or his or her designee's decision shall be affirmed unless the Board of Building Code of Appeals finds that the City Manager's and/or his or her designee's decision was arbitrary or capricious or that such decision violates applicable federal, state or local law. The Board of Building Code of Appeal's decision shall be rendered at the said hearing and the decision shall be final.

e. The paramount issue with respect to any appeal will be whether the type of backflow preventer authorized will adequately protect the public water supply system.

f. Before deciding any appeal, the Board of Building Code of Appeals shall consider:

(I) Whether the backflow preventer specified by the City Manager and/or his or her designee is necessary to adequately protect the City's water supply system;

(II) Whether the backflow preventer preferred by the owner would adequately protect the City's water supply system;

(III) Whether the use of the backflow preventer preferred by the owner, when compared to the backflow preventer designated by the City Manager and/or his or her designee, is likely to result in a material decrease in the level of protection to the public water supply system.

g. In cases where an existing structure is being remodeled or reconstructed or where a change in the use of an existing structure will or may create a greater degree of hazard to the public water supply system than previously existed, the City Manager may consider:

(I) Differences in the type of devices and backflow prevention assemblies, when comparing the type of backflow preventer specified by the City Manager and/or his or her designee to the type of backflow preventer preferred by the owner;

(II) Differences in the installation and maintenance of the two types of backflow preventers being compared;

(III) Other significant differences or practical difficulties associated with the use, installation and/or maintenance of the backflow preventers being compared;

(IV) Other relevant life, safety or health concerns raised by the City Manager and/or his or her designee or the owner.

(5) Jurisdictional issues and conflicts:

In the event the provisions of 12-86 are in conflict with the requirements of any plumbing code or regulation applicable in the City of Trinidad, the provisions of 12-86 shall apply to the extent necessary to resolve the conflict and shall be binding upon all plumbing officials performing official duties within the City.

(6) Violations and Penalties

a. The City Manager and/or his or her designee shall notify the owner, or authorized agent of the owner, of the building or premises of a violation of this Chapter. The City Manager and/or his or her designee shall set a specific time for the owner to have the violation removed or corrected. If the owner fails to correct the violation in the specified time, the City Manager and/or his or her designee may, if in his or her judgment decide the connection poses an imminent health hazard, suspend water service to the building or premises. Additional fines or penalties may also be invoked following suspension of service.

b. Violations of this Chapter may be prosecuted in municipal court and, upon conviction thereof, a violator may be fined at a minimum of \$300 and not to exceed \$2,650 per violation, per day.

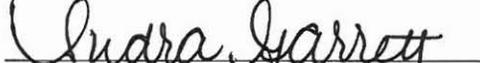
INTRODUCED BY COUNCILMEMBER BONATO, READ AND ORDERED  
PUBLISHED, this 15th day of April, 2014.

FINALLY PASSED AND APPROVED this 6<sup>th</sup> day of May, 2014.

EFFECTIVE DATE OF THIS ORDINANCE SHALL BE the 16<sup>th</sup> day of May, 2014.

  
JOSEPH A. REORDA, Mayor

ATTEST:

  
AUDRA GARRETT, City Clerk