

TOWN OF LYONS, COLORADO

ORDINANCE NO. 1007

**AN ORDINANCE AMENDING CHAPTER 13 OF THE LYONS MUNICIPAL CODE TO ADD A
NEW ARTICLE 6 ENTITLED BACKFLOW PREVENTION AND CROSS-CONNECTION
CONTROL PROGRAM**

WHEREAS, pursuant to C.R.S. § 31-15-707, the Town of Lyons (“Town”) possesses the authority to maintain a public waterworks system within the Town and protect such waterworks from pollution; and

WHEREAS, the Town supplies drinking water to its residents through its Water Department, which was created through the adoption of Section 13-3-10 of the Lyons Municipal Code; and

WHEREAS, the Colorado Department Public Health and Environment (“CDPHE”) instituted Regulation 11, which requires drinking water suppliers to implement a backflow prevention and cross-connection control program (“BPCCC Program”), to assure the safety of public drinking water supplies; and

WHEREAS, the Town desires to amend its Municipal Code to add a BPCCC Program in order to comply with state law and to further the public health, safety, convenience and general welfare of the community; and

WHEREAS, approval of this Ordinance on first reading is intended only to confirm that the Board of Trustees desires to comply with state law and the Lyons Municipal Code by setting a public hearing in order to provide the public an opportunity to present testimony and evidence regarding the proposal. Approval of this Ordinance on first reading does not constitute a representation that the Board of Trustees, or any member of the Town Board, supports, approves, rejects, or denies this Ordinance.

NOW THEREFORE, BE IT ORDAINED BY THE BOARD OF TRUSTEES OF THE TOWN OF LYONS, BOULDER COUNTY, COLORADO:

Section 1. Recitals Incorporated. The recitals set forth above are hereby incorporated by reference and are adopted as findings and determinations of the Board of Trustees.

Section 2. New Article 6. The Lyons Municipal Code is hereby amended to add a new Article 6, entitled Backflow Prevention and Cross-Connection Control Program, to Chapter 13. Article 6 shall read in full as follows:

ARTICLE 6 – Backflow Prevention and Cross-Connection Control Program

Sec. 13-6-10. -Purpose.

The purpose of this Article is to protect the Public Water System from contaminants or pollutants that could enter the distribution system by Backflow from a Consumer’s Water Supply System through the service connection.

Sec. 13-6-20. -Authority.

- (a) The authority to implement this Backflow Prevention and Cross-Connection Control Program is contained in the following statute, legislation and regulations and acts:
 - (1) Article 1-114 and Article 1-114.1 of Title 25 of the Colorado Revised Statutes (CRS);
 - (2) Section 39 of 5 Colorado Code of Regulations 1002-11, Colorado Primary Drinking Water Regulations;
 - (3) 3 Colorado Code of Regulations 720-1, Colorado Plumbing Code; and
 - (4) Town of Lyons Municipal Code.
- (b) The Water Department has the authority to inspect all service connections within the distribution system to determine if the connection is a Cross-Connection.
- (c) The Water Department has the authority to control all service connections within the distribution system if the connection is a Cross-Connection.
- (d) The Water Department may control any service connections within the distribution system in lieu of an inspection as long as the service connection is controlled with an Air Gap or reduced pressure zone Backflow Prevention Assembly.
- (e) The Water Department may collect fees for the administration of this Article as adopted by the Board of Trustees by resolution.
- (f) The Water Department shall maintain records of Cross-Connection inspections and the installation, testing and repair of all Backflow Prevention Assemblies installed for purposes of Containment and Containment By Isolation.
- (g) The Water Department is authorized to adopt policies and procedures necessary to implement the provisions of this Article and the Backflow Prevention and Cross-Connection Control Program.
- (h) Except as otherwise provided herein, the Water Department shall administer, implement and enforce the provisions of this Article.

Sec. 13-6-30. -Applicability.

This Article applies to all commercial, industrial, municipal and Multi-Family residential service connections within the Public Water System and to any persons outside the Town who are, by contract or agreement with the Water Department, users of the Public Water System. This Article does not apply to Single-Family residential service connections unless the Water Department becomes aware of a Cross-Connection at the Single-Family connection.

Sec. 13-6-40. -Definitions.

For purposes of this Article, the following terms and phrases shall have the meaning indicated, unless otherwise provided:

- (a) “*Air Gap*” is a physical separation between the free-flowing discharge end of a potable water supply pipeline and an open or non-pressure receiving vessel installed in accordance with standard AMSE A112.1.2.
- (b) “*Backflow*” means the undesirable reversal of flow of water or mixtures of water and other liquids, gases or other substances into the Public Water Systems distribution system from any source or sources other than its intended source.
- (c) “*Backflow Contamination Event*” means backflow into a Public Water System from an Uncontrolled Cross-Connection such that the water quality no longer meets the Colorado Primary Drinking Water Regulations or presents an immediate health and/or safety risk to the public.
- (d) “*Backflow Prevention Assembly*” means any mechanical assembly installed at a water service line or at a plumbing fixture to prevent a Backflow Contamination Event, provided that the mechanical assembly is appropriate for the identified contaminant at the Cross-Connection and is an in-line field-testable assembly.
- (e) “*Backflow Prevention Method*” means any method and/or non-testable device installed at a water service line or at a plumbing fixture to prevent a Backflow Contamination Event, provided that the method or non-testable device is appropriate for the identified contaminant at the Cross-Connection.
- (f) “*Certified Cross-Connection Control Technician*” means a person who possesses a valid Backflow Prevention Assembly Tester certification from one of the following approved organizations: American Society of Sanitary Engineering (ASSE) or the American Backflow Prevention Association (ABPA). If a certification has expired, the certification is invalid.
- (g) “*Containment*” means the installation of a Backflow Prevention Assembly or a Backflow Prevention Method at any connection to the Public Water System that supplies an auxiliary water system, location, facility, or area such that Backflow from a Cross-Connection into the Public Water System is prevented.
- (h) “*Containment by Isolation*” means the installation of Backflow Prevention Assemblies or Backflow Prevention Methods at all Cross-Connections identified within a Consumer’s water system such that backflow from a Cross-Connection into the Public Water System is prevented.
- (i) “*Controlled*” means having a properly installed, maintained, and tested or inspected Backflow Prevention Assembly or Backflow Prevention Method that prevents backflow through a Cross-Connection.
- (j) “*Cross-Connection*” means any connection that could allow any water, fluid, or gas such that the water quality could present an unacceptable health and/or safety risk to the public, to flow from any pipe, plumbing fixture, or a Consumer’s water system into a Public Water System’s distribution system or any other part of the Public Water System through backflow.

- (k) "*Multi-Family*" means a single residential connection to the Public Water System's distribution system from which two or more separate dwelling units are supplied water.
- (l) "*Public Water System*" means all Town facilities and equipment associated with the collection, treatment, operation, and distribution of water by the Water Department.
- (m) "*Single-Family*" means:
 - (i) A single dwelling which is occupied by a single family and is supplied by a separate service line; or
 - (ii) A single dwelling comprised of multiple living units where each living unit is supplied by a separate service line.
- (n) "*Uncontrolled*" means not having a properly installed and maintained and tested or inspected Backflow Prevention Assembly or Backflow Prevention Method, or the Backflow Prevention Assembly or Backflow Prevention Method does not prevent backflow through a Cross-Connection.
- (o) "*Water Department*" means the Town of Lyons Water Department as created under Section 13-3-10 of this Code.
- (p) "*Water Supply System*" means a water distribution system, piping, connection fittings, valves and appurtenances within a building, structure, or premises. Water Supply Systems are also referred to commonly as premise plumbing systems.

Sec. 13-6-50. -Requirements.

Consumers or property owners with commercial, industrial, municipal and Multi-Family residential service connections shall comply with the following requirements:

- (a) Commercial, industrial, municipal and Multi-Family service connections shall be subject to an inspection by the Water Department for Cross-Connections. If the Water Department identifies a Cross-Connection, an appropriate Backflow Prevention Assembly and/or Backflow Prevention Method shall be installed at the Consumer's water service connection within one hundred twenty (120) days after its discovery. The Backflow Prevention Assembly shall be installed downstream of the water meter or as close to that location as deemed practical by the Water Department. If the Backflow Prevention Assembly or Backflow Prevention Method cannot be installed within one hundred twenty (120) days, the Water Department shall take action to control or remove the Cross-Connection, suspend service to the Cross-Connection, or receive an alternative compliance schedule from the Colorado Department of Public Health and Environment.
- (b) In no event shall it be permissible to have connections or meter test tees between the meter and the Containment Backflow Prevention Assembly.

- (1) In instances where a reduced pressure principle backflow preventer cannot be installed, the owner must install approved backflow prevention devices or Backflow Prevention Methods at all Cross-Connections within the owner's plumbing system.
- (c) Backflow Prevention Assemblies and Backflow Prevention Methods shall be installed in a location which provides access for maintenance, testing and repair.
- (d) Reduced pressure principle Backflow preventers shall not be installed in a manner subject to flooding.
- (e) Provisions shall be made to provide adequate drainage from the discharge of water from reduced pressure principle Backflow Prevention Assemblies. Such discharge shall be conveyed in a manner which does not impact waters of the state.
- (f) All Backflow Prevention Assemblies and Backflow Prevention Methods shall be protected to prevent freezing. Those Backflow Prevention Assemblies and Backflow Prevention Methods used for seasonal services may be removed in lieu of being protected from freezing. The Backflow Prevention Assemblies and Backflow Prevention Methods used for seasonal services must be reinstalled and then tested by a Certified Cross-Connection Control Technician upon reinstallation.
- (g) Where a Backflow Prevention Assembly or Backflow Prevention Method is installed on a Water Supply System using storage water heating equipment such that thermal expansion causes an increase in pressure, a device for controlling pressure shall be installed.
- (h) All Backflow Prevention Assemblies shall be tested at the time of installation and on an annual schedule thereafter. Such tests must be conducted by a Certified Cross-Connection Control Technician.
- (i) All costs for design, installation, maintenance, testing and as needed repair and replacement shall be borne by the Consumer.
- (j) No exemptions to these requirements shall be authorized with the exception of fire sprinkler systems where the installation of a Backflow Prevention Assembly or Backflow Prevention Method will compromise the integrity of the fire sprinkler system, as determined by the Water Department.
- (k) For new buildings, all building plans must be submitted to the Water Department and approved prior to the provision of water service by the Town. Building plans must show:
 - (1) Water service type, size and location;
 - (2) Meter size and location;
 - (3) Backflow Prevention Assembly size, type and location; and

(4) Fire sprinkler system(s) service line, size and type of Backflow Prevention Assembly.

- (l) All fire sprinkling lines shall have a minimum protection of an approved double check valve assembly for Containment of the system.
- (m) All glycol (ethylene or propylene) or antifreeze systems shall have an approved reduced pressure principle Backflow preventer for Containment.
- (n) Dry fire systems shall have an approved double check valve assembly installed upstream of the air pressure valve.
- (o) In cases where the installation of a Backflow Prevention Assembly or Backflow Prevention Method will compromise the integrity of the fire sprinkler system the Water Department can choose to not require the Backflow protection. The Water Department will measure chlorine residual at location representative of the service connection once a month and perform periodic bacteriological testing at the site. If the Water Department suspects water quality issues the Water Department will evaluate the practicability of requiring that the fire sprinkler system be flushed periodically.

Sec. 13-6-60. -Inspection, Testing and Repair.

- (a) The Water Department shall require inspection, testing, maintenance and as needed repairs and replacement of all Backflow Prevention Assemblies and Backflow Prevention Methods, and of all required installations within the Consumer's or owner's plumbing system in the cases where Containment assemblies and/or methods cannot be installed.
- (b) Backflow Prevention Assemblies or Backflow Prevention Methods shall be tested by a Certified Cross-Connection Control Technician upon installation and tested at least annually thereafter. The tests shall be made at the expense of the Consumer.
 - (1) Any Backflow Prevention Assemblies or Backflow Prevention Methods that are non-testable shall be inspected at least once annually by a Certified Cross-Connection Control Technician. The inspections shall be made at the expense of the Consumer.
- (c) As necessary, Backflow Prevention Assemblies or Backflow Prevention Methods shall be repaired and retested or replaced and tested at the expense of the Consumer whenever the Backflow Prevention Assemblies or Backflow Prevention Methods are found to be defective by the Water Department.
- (d) Testing gauges shall be tested and calibrated for accuracy at least once annually at the expense of the Consumer.

Sec. 13-6-70. -Reporting and Recordkeeping.

- (a) Copies of records of test reports, repairs and retests, or replacements shall be kept by the Consumer for a minimum of three (3) years.
- (b) Copies of records of test reports, repairs and retests shall be submitted to the Water Department by mail, facsimile or e-mail by the testing company or testing technician.
- (c) Information on test reports shall include, but may not be limited to:
 - (1) Assembly or method type;
 - (2) Assembly or method location;
 - (3) Assembly make, model and serial number;
 - (4) Assembly size;
 - (5) Test date;
 - (6) Test results including all results that would justify a pass or fail outcome;
 - (7) Certified Cross-Connection Control Technician certification agency;
 - (8) Technician's certification number;
 - (9) Technician's certification expiration date;
 - (10) Test kit manufacturer, model and serial number; and
 - (11) Test kit calibration date.

Sec. 13-6-80. -Right of entry.

Water Department personnel shall have the right of entry to inspect any and all buildings and premises for the presence of Cross-Connections to determine compliance with this Article in accordance with Section 13-1-30 of this Chapter. This right of entry shall be a condition of water service in order to protect the health, safety and welfare of Consumers throughout the Public Water System's distribution system.

Sec. 13-6-90. -Compliance.

- (a) Consumers shall cooperate with the installation, inspection, testing, maintenance, and as needed repair and replacement of Backflow Prevention Assemblies and with the inspection process. For any identified Uncontrolled Cross-Connections, the Water Department shall complete one of the following actions within 120 days of its discovery:
 - (1) Control the Cross-Connection; or
 - (2) Remove the Cross-Connection; or
 - (3) Suspend service to the Cross-Connection.
- (b) The Water Department shall give notice in writing to any Consumer or owner whose plumbing system has been found to present a risk to the Public Water System's distribution system through an Uncontrolled Cross-Connection. The notice and order shall state that the Consumer or owner must install a Backflow Prevention Assembly or Backflow Prevention Method at each service connection to the Consumer's or owner's premises to continue water service. The notice and order will give a date by which compliance must be achieved.
- (c) In instances where a Backflow Prevention Assembly or Backflow Prevention Method cannot be installed, the Consumer or owner must install approved Backflow Prevention Assemblies or Backflow Prevention Methods at all Cross-

Connections within the Consumer's or owner's Water Supply System. The notice and order will give a date by which compliance must be achieved.

Sec. 13-6-100. -Violations and Penalties.

Any violation of the provisions of this Article 6, shall, upon conviction, be punishable as provided in Article 1 of Chapter 13 of this Code, Article 4 of Chapter 1 of this Code, or under other applicable statutes, laws, or regulations.

Sec. 13-6-110. -Conflict with other codes.

If a dispute or conflict arises between this Article and any plumbing, mechanical, building, electrical, fire or other code adopted by the Town, then the most stringent provisions of each respective code shall prevail.

Section 3. Severability. Should any one or more sections or provisions of this Ordinance be judicially determined invalid or unenforceable, such judgment shall not affect, impair or invalidate the remaining provisions of this Ordinance, the intention being that the various sections and provisions are severable.

Section 4. Repeal. All other ordinances or resolutions or parts of ordinances or resolutions in conflict with the provisions of this Ordinance are hereby repealed, provided that such repeal shall not repeal any repealer clauses in such ordinances nor revive any ordinance thereby.

Section 5. Effective Date. This Ordinance shall become effective thirty (30) days after publication following final passage in accordance with Section 2-2-160 of the Lyons Municipal Code.

INTRODUCED AND PASSED ON FIRST READING THIS 21st DAY OF NOVEMBER, 2016.

**INTRODUCED, PASSED, ADOPTED AND ORDERED PUBLISHED THIS ____ DAY OF
_____, 2016.**

TOWN OF LYONS, COLORADO

Connie Sullivan, Mayor

ATTEST:

Debra K. Anthony, Town Clerk