

TOWN OF PALMER LAKE, COLORADO

ORDINANCE NO. 7 OF 2018

**AN ORDINANCE ADDING A NEW CHAPTER 13.09
TO THE TOWN OF PALMER LAKE MUNICIPAL CODE
GOVERNING BACKFLOW PREVENTION
AND CROSS-CONNECTION CONTROL TO PROTECT
THE TOWN'S WATER SYSTEM**

WHEREAS, THE TOWN OWNS AND OPERATES A MUNICIPAL WATER SYSTEM;
AND

WHEREAS, PURSUANT TO SECTION 25-1-114 (1)(H), C.R.S., NO PERSON MAY INSTALL, MAINTAIN OR PERMIT AN UNCONTROLLED CROSS CONNECTION THAT IS CONNECTED TO A DRINKING WATER SYSTEM THAT SUPPLIES WATER TO THE PUBLIC; AND

WHEREAS, SECTION 11.39 OF THE COLORADO PRIMARY DRINKING WATER REGULATIONS, 5 CCR 1002-11 (REGULATION 11), REQUIRES THAT WATER SUPPLIERS THAT OWN AND/OR OPERATE PUBLIC WATER SYSTEMS PROTECT THE DRINKING WATER FROM POTENTIAL CONTAMINATION THROUGH CROSS CONNECTIONS AS CHEMICAL, BIOLOGICAL AND RADIOLOGICAL CONTAMINANTS CAN POSE UNACCEPTABLE HEALTH AND/OR SAFETY RISKS TO THE PUBLIC THROUGH BACKFLOW OF CONTAMINANTS FROM CROSS CONNECTIONS; AND

WHEREAS, THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT'S WATER QUALITY CONTROL DIVISION IS RESPONSIBLE FOR ENSURING THAT WATER SUPPLIERS COMPLY WITH SECTION 11.39 OF REGULATION 11; AND

WHEREAS, GENERALLY, SECTION 11.39 OF REGULATION 11, THE BACKFLOW PREVENTION AND CROSS-CONNECTION CONTROL (BPCCC) RULE, REQUIRES THAT WATER SUPPLIERS:

- DEVELOP AND IMPLEMENT A WRITTEN BPCCC PROGRAM;
- NOTIFY THE DEPARTMENT OF ANY SUSPECTED OR CONFIRMED BACKFLOW EVENTS;
- PROHIBIT INSTALLATION OF CROSS CONNECTIONS AT ITS FACILITIES OR THROUGHOUT THE DISTRIBUTION SYSTEM;
- PROHIBIT ANY UNCONTROLLED CROSS CONNECTIONS TO CONTINUE TO EXIST ONCE DISCOVERED;

- CONTROL THE INSTALLATION OF NEW UNCONTROLLED CROSS CONNECTIONS;
- SURVEY ALL NON-SINGLE-FAMILY-RESIDENTIAL CONNECTIONS FOR CROSS CONNECTIONS OR CONTROL NON-SURVEYED NON-SINGLE-FAMILY-RESIDENTIAL CONNECTIONS WITH THE MOST PROTECTIVE BACKFLOW PREVENTION ASSEMBLY OR BACKFLOW PREVENTION METHOD;
- CONTROL ANY IDENTIFIED CROSS CONNECTION IN A MANNER THAT PREVENTS BACKFLOW THROUGH THE CROSS CONNECTION IN TO THE DISTRIBUTION SYSTEM OR IF APPLICABLE THE WATER SUPPLY SYSTEM;
- PERFORM OR VERIFY ANNUAL BACKFLOW PREVENTION ASSEMBLY TESTING;
- PERFORM OR VERIFY ANNUAL BACKFLOW PREVENTION METHOD INSPECTIONS;
- ENSURE THAT ALL FAILED ASSEMBLIES AND INADEQUATE METHODS ARE REPAIRED; AND,
- KEEP RECORDS AND DEVELOP AN ANNUAL REPORT TO TRACK COMPLIANCE WITH THE BPCCC RULE, AMONGST OTHER THINGS, DEVELOP AND IMPLEMENT A WRITTEN BPCCC PROGRAM;

WHEREAS, THE TOWN BOARD OF TRUSTEES DESIRES TO AMEND TITLE 13 BY ADDING A NEW CHAPTER 13.09 AS SET FORTH HEREIN TO IMPLEMENT A WRITTEN BPCCC PROGRAM AS REQUIRED BY SECTION 11.39 OF REGULATION 11 AND ENSURE THE INTEGRITY OF THE WATER SYSTEM IS MAINTAINED TO THE BEST POSSIBLE EXTENT BY PROTECTING THE DRINKING WATER FROM POTENTIAL CONTAMINATION THROUGH CROSS CONNECTIONS.

NOW THEREFORE, BE IT ORDAINED BY THE BOARD OF TRUSTEES OF THE TOWN OF PALMER LAKE, EL PASO COUNTY, COLORADO, AS FOLLOWS:

Section 1. Title 13 of the Town of Palmer Lake Municipal Code is hereby amended by the addition of a new Chapter 13.09 to read as follows in its entirety:

CHAPTER 13.09

**WATER SYSTEM BACKFLOW PREVENTION
AND CROSS-CONNECTION CONTROL**

Sections:

- | | |
|-----------|--------------------------------|
| 13.09.010 | Purpose |
| 13.09.020 | Authority |
| 13.09.030 | Applicability |
| 13.09.040 | Definitions |
| 13.09.050 | Requirements |
| 13.09.060 | Inspection, testing and repair |

13.09.070 Reporting and recordkeeping
13.09.080 Right of entry

13.09.090 Compliance.
13.09.100 Violations and penalties

13.09.010 Purpose. The purpose of this Chapter is to protect the public water system from contaminants or pollutants that could enter the distribution system by backflow from a customer's water supply system through the service connection.

13.09.020 Authority. The authority to implement the program set forth in this Chapter is contained in:

- a. Article 1-114 and Article 1-114.1 of Title 25 of the Colorado Revised Statutes;
- b. Section 39 of 5 CCR 1002-11, Colorado Primary Drinking Water Regulations; and the
- c. Colorado Plumbing Code

13.09.030 Applicability. This Chapter applies to all commercial, industrial and multi-family residential service connections within the Town's public water system and to any persons outside the Town who are, by contract or agreement with the Town's public water system, users of the Town's public water system. This Chapter does not apply to single-family-residential service connections unless the Town's public water system becomes aware of a cross connection at the single family connection.

13.09.040 Definitions. For purposes of this Chapter, the following terms shall have the assigned meanings:

- A. "Active date" means the first day that a backflow prevention assembly or backflow prevention method is used to control a cross-connection in each calendar year.
- B. "Air gap" means 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.
- C. "Backflow" means the undesirable reversal of flow of water or mixtures of water and other liquids, gases or other substances into the Town's public water systems distribution system from any source or sources other than its intended source.
- D. "Backflow contamination event" means backflow into the Town's 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.

- E. “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.
- F. “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.
- G. “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.
- H. “Containment” means the installation of a backflow prevention assembly or a backflow prevention method at any connection to the Town’s 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.
- I. “Containment by isolation” means the installation of backflow prevention assemblies or backflow prevention methods at all cross connections identified within a customer’s water system such that backflow from a cross connection into the public water system is prevented.
- J. “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.
- K. “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 customer’s water system into the Town’s public water system’s distribution system or any other part of the public water system through backflow.
- L. “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.
- M. “Operator” means the person designated by the Town Board of Trustees as responsible for the operation of the Town’s public water system.

- N. "Single-Family" means
- (1) A single dwelling which is occupied by a single family and is supplied by a separate service line; or
 - (2) A single dwelling comprised of multiple living units where each living unit is supplied by a separate service line.
- O. "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.
- 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.

13.09.050 Requirements.

- A. Commercial, industrial and multi-family water system service connections shall be subject to a survey for cross connections. If a cross connection has been identified, an appropriate backflow prevention assembly and or method shall be installed at the customer's water service connection within 120 days of its discovery. The assembly shall be installed downstream of the water meter or as close to that location as deemed practical by the Town's public water system operator. If the assembly or method cannot be installed within 120 days, the Town's public water system operator must 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. It is prohibited to have connections or tees between the meter and the containment backflow prevention assembly.
- (1) In instances where a reduced pressure principle backflow preventer cannot be installed, the property owner must install approved backflow prevention devices or methods at all cross-connections within the owner's plumbing system.
- C. Backflow prevention assemblies and 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 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 mater which does not impact waters of the state.
- F. All assemblies and methods shall be protected to prevent freezing. Those assemblies and methods used for seasonal services may be removed in lieu of being protected from freezing. The assemblies and methods must be reinstalled and then tested by a certified cross-connection control technician upon reinstallation.
- G. Where a backflow prevention assembly or 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. The Town's public water system operator shall require inspection, testing, maintenance and as needed repairs and replacement of all backflow prevention assemblies and methods, and of all required installations within the owner's plumbing system in the cases where containment assemblies and or methods cannot be installed.
- J. All costs for design, installation, maintenance, testing and as needed repair and replacement are to be borne by the property owner and, if any costs are incurred by the Town, such costs shall be billed to the property owner or customer and billed on and as part of the water bill.
- K. No grandfather clauses exist except for fire sprinkler systems where the installation of a backflow prevention assembly or method will compromise the integrity of the fire sprinkler system.
- L. For new buildings, all building plans must be submitted to the public water system operator and approved prior to the start of water service. 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.
 - (a) All fire sprinkling lines shall have a minimum protection of an approved double check valve assembly for containment of the system.

- (b) All glycol (ethylene or propylene), or antifreeze systems shall have an approved reduced pressure principle backflow preventer for containment.
- (c) Dry fire systems shall have an approved double check valve assembly installed upstream of the air pressure valve.
- (d) In cases where the installation of a backflow prevention assembly or method will compromise the integrity of the fire sprinkler system the public water system can chose to not require the backflow protection. The Town's public water system will measure chlorine residual at location representative of the service connection once a month and perform periodic bacteriological testing at the site. If the public water system suspects water quality issues the public water system will evaluate the practicability of requiring that the fire sprinkler system be flushed periodically.

13.09.060 Inspection, testing and repair.

- (a) Backflow prevention assemblies or 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 Town's water system customer.
- (b) Any backflow prevention assemblies or 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 customer.
- (c) As necessary, backflow prevention assemblies or methods shall be repaired and retested or replaced and tested at the expense of the customer whenever the assemblies or methods are found to be defective.
- (d) Testing gauges shall be tested and calibrated for accuracy at least once annually.

13.09.070 Reporting and recordkeeping.

- (a) Copies of records of test reports, repairs and retests, or replacements shall be kept by the customer for a minimum of three (3) years.
- (b) Copies of records of test reports, repairs and retests shall be submitted to the public water system 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; and
- (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
- (11) Test kit calibration date

13.09.080 Right of entry. A properly credentialed representative of the Town's public water system shall have the right of entry to survey any and all buildings and premises for the presence of cross-connections for possible contamination risk to and for determining compliance with this Chapter. This right of entry shall be a condition of water service in order to protect the health, safety and welfare of customers throughout the Town's public water system's distribution system.

13.09.090 Compliance.

- A. Town water system customers shall cooperate with the installation, inspection, testing, maintenance, and as needed repair and replacement of backflow prevention assemblies and with the survey process. For any identified uncontrolled cross-connections, the Town public water system operator shall complete one of the following actions within 120 days of its discovery:
 - (1) Control the cross connection
 - (2) Remove the cross connection
 - (3) Suspend service to the cross connection
- B. The Town's public water system operator shall give notice in writing to any owner whose plumbing system has been found to present a risk to the public waters system's distribution system through an uncontrolled cross connection. The notice and order shall state that the owner must install a backflow prevention assembly or method at each service connection to the owner's premises to contain the water service. The notice and order will give a date by which the owner must comply. In instances where a backflow prevention assembly or method cannot be installed, the owner must install approved backflow prevention assemblies or methods at all cross-connections within the owner's water supply system. The notice and order will give a date by which the owner must comply.

13.09.100 Violations and penalties. Any violation of the provisions of this Chapter, shall, upon conviction, be punishable as provided in Chapter 1.16 of this Code.

Section 2. Severability. If any provision of this Ordinance is found by a court of competent jurisdiction to be invalid, the remaining provisions of this Ordinance will remain valid, it being the intent of the Town of Palmer Lake that the provisions of this Ordinance are severable.

Section 3. Repealer. All ordinances or resolutions, or parts thereof, in conflict with this Ordinance are hereby repealed, provided that such repealer shall not repeal the repealer clauses of such ordinance nor revive any ordinance thereby.

Section 4. Publication and effective date. The Town Clerk shall certify to the passage of this ordinance and cause notice of its contents and passage to be published by title only. This ordinance shall become effective thirty (30) days after the date of publication as provided by C.R.S. § 31-16-105..

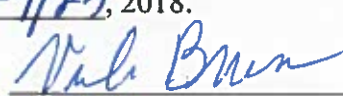
PASSED AND ADOPTED THIS 12 DAY OF April, 2018, by a vote of _____ for and _____ against. all aye.


JOHN CRESSMAN, MAYOR

ATTEST:


VERLA BRUNER, TOWN CLERK

I hereby certify that the above Ordinance was adopted by the Board of Trustees of the Town of Palmer Lake at its meeting of April, 2018, and ordered published by title only by Gazette newspaper on 4/17-4/23, 2018.


Verla Bruner, Town Clerk

The Gazette

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TOWN OF PALMER LAKE, COLORADO
ORDINANCE NO. 7 OF 2018
AN ORDINANCE ADDING A NEW CHAPTER 13.09 TO THE TOWN OF PALMER LAKE MUNICIPAL CODE GOVERNING BACKFLOW PREVENTION AND CROSS CONNECTION CONTROL TO PROTECT THE TOWNS WATER SYSTE

ORDINANCE NO. 9 OF 2018
AN ORDINANCE OF THE BOARD OF TRESTEES OF THE TOWN OF PALMER LAKE AMENDING PROVISIONS OF THE MUNICIPAL CODE CONCERNING ELECTIONS

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