AGENDA ITEM or FINAL CONTRACT REVIEW SUBMITTAL FORM

Agenda Item: Resolution; Adopting Backflow Prevention Regulatio

Action Requested: Board of County Commissioners' Signature

Parties to the Agreement:

Term Begins: **Term Ends:** **Grant Contract #:**

Summary:

In consideration of protecting our water supply and in the spirit of being in compliance with the Colorado Department of Public Health & Environment, attached please find "A Resolution Adopting Backflow Prevention Regulations for the Protection of the Public Water System"

Fiscal Impact:

Submitted by: Office of the County Attorney **Submitter's Email Address:** rmagruder@gunnisoncounty.org

Finance Review: ○ Required ◉ Not Required

Comments:

Reviewed by: Discharge Date:

County Attorney Review: ◉ Required ○ Not Required

Comments:
ok - gs

Reveiwed by: GUNCOUNTY1\gstuhr Discharge Date: 1/15/2016 Certificate of Insurance Required Yes ○ No ◉

County Manager Review:

Comments:

Reveiwed by: GUNCOUNTY1\khaase Discharge Date: 1/15/2016

○ Consent Agenda ◉ Regular Agenda ○ Worksession Time Allotted: DCM Report

Agenda Date: 1/19/2016

Revised April 2015

BOARD OF COUNTY COMMISSIONERS
OF THE COUNTY OF GUNNISON, COLORADO

RESOLUTION NO: 2016-____

A RESOLUTION ADOPTING BACKFLOW PREVENTION REGULATIONS FOR THE PROTECTION OF THE PUBLIC WATER SYSTEM

WHEREAS, the Board of County Commissioners of the County of Gunnison, Colorado ("Gunnison County") owns and operates a public water system; and

WHEREAS, it is the intent of Gunnison County to protect such 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; and

WHEREAS, the authority to implement this program includes, but is not limited to:

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

C. Colorado Plumbing Code; and

WHEREAS, Gunnison County has the authority to survey all service connections within Gunnison County's public water distribution system to determine if the connection is a cross connection; and

WHEREAS, Gunnison County has the authority to control all service connections within the distribution system if the connection is a cross connection; and

WHEREAS, Gunnison County may control any service connections within the distribution system in lieu of a survey as long as the service connection is controlled with an air gap or reduced pressure zone backflow prevention assembly; and

WHEREAS, Gunnison County may collect fees for the administration of this program; and

WHEREAS, Gunnison County shall maintain records of cross connection surveys and the installation, testing and repair of all backflow prevention assemblies installed for contaminant and contaminants by isolation purposes;

NOW THEREFORE, BE IT RESOLVED by the Board of County Commissioners of the County of Gunnison, Colorado that, in the best interest of public health, safety and welfare, that the following Backflow Prevention Regulations shall be and hereby are adopted, retroactive January 1, 2016, and shall apply to all commercial, industrial and multi-family residential service connections served by Gunnison County's public water supply system, but do not apply to single family residential service connections unless Gunnison County becomes aware of a cross connection at the single family connection.

BACKFLOW PREVENTION REGULATIONS

1. DEFINITIONS.

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" 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.

D. "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.

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 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 a 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. “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.

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 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.

2. REQUIREMENTS.

A. Commercial, industrial and multi-family 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 public water system. If the assembly or method cannot be installed within 120 days the public water system must take action to control or remove the cross connection,

suspended service to the cross connection or receive an alternative compliance schedule from the Colorado Department of Public Health and Environment.

B. In no case shall it be permissible 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 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 devices 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 devices must be reinstalled and then tested by a certified cross-connection control technician prior to the service being activated.

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 public water system 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 customer.

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 and approved prior to the issuance 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

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 will not require the backflow protection. The public water system will measure chlorine residual at the service connection once a month and perform periodic bacteriological testing at the site. If the public water system suspect water quality issues the public water system will evaluate the practicability of requiring that the fire sprinkler system be flushed periodically.

3. INSPECTIONS, TESTING AND REPAIR.

A. Backflow prevention devices 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 customer.

1. Any backflow prevention devices 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.

B. As necessary, backflow prevention devices shall be repaired and retested or replaced and tested at the expense of the customer whenever the devices are found to be defective.

C. Testing gauges shall be tested and calibrated for accuracy at least once annually.

4. 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

5. RIGHT OF ENTRY.

A properly credentialed representative of the 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 section. This right of entry shall be a condition of water service in order to protect the health, safety and welfare of customers throughout the public water system's distribution system.

6. COMPLIANCE.

A. 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 public water system 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 public water system 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 with the order.

1. In instances where a backflow prevention assembly or method cannot be installed, the owner must install approved backflow prevention devices 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 with the order.

7. VIOLATIONS AND PENALITIES.

Any violation of the provisions of this resolution, shall, upon conviction be punishable as provided in all applicable statues, laws, and regulations.

8. CONFLICT OF OTHER CODES:

If a dispute or conflict arises between the Colorado Plumbing Code as adopted herein, and any plumbing, mechanical, building, electrical, fire or other code adopted by the State, then the most stringent provisions of each respective code shall prevail.

INTRODUCED by Commissioner _____, seconded by Commissioner _____, and adopted this 19th day of January, 2016.

BOARD OF COUNTY COMMISSIONERS
OF THE COUNTY OF GUNNISON, COLORADO

By _____
Paula Swenson, Chairperson

By _____
Phil Chamberland, Vice Chairperson

By _____
Jonathan Houck, Commissioner

ATTEST:

_____
Deputy County Clerk