DATE: February 3, 2020

TO: Honorable Mayor and Members of the City Council through City Manager

FROM: Kent Carothers, P.E. – Deputy Director Public Works and Utilities - Operations
       Mike Ielmorini – Assistant Operations Manager, Public Works and Utilities

SUBJECT: Introduction (First Reading) of an Ordinance Revising Water System Regulations Contained in Sections 15.08, 15.09 and 15.12 of the Petaluma Municipal Code to Comply with Requirements for Cross-Connections and Backflow Control in the California Code of Regulations Title 17 and Current Standards

RECOMMENDATION

It is recommended that the City Council Introduce an Ordinance Revising Water System Regulations Contained in Sections 15.08, 15.09, and 15.12 of the Petaluma Municipal Code to Comply with Requirements for Cross-Connections and Backflow Control in the California Code of Regulations Title 17 and Current Standards.

BACKGROUND

The City strives to deliver the best quality water to customers staying well within the strict federal Environmental Protection Agency (EPA) and California Division of Drinking Water guidelines. In accordance with State requirements, the City of Petaluma is required to protect the public water supply from contamination by implementing and maintaining a cross-connection control program. In general, this program prevents contaminants from flowing back into the water distribution system from service connections.

The City must periodically review and update its regulations for the Water Cross-Connection Control Program to align with Title 17, California Code of Regulations, to ensure consistency with regulatory requirements, and to reflect current industry practices. Doing so provides the Public Works and Utilities Department with the authority to conduct appropriate and required activities to ensure protection of the water system from cross-connections resulting in backflow. Cross-connection is an unprotected actual or potential connection between a potable water system used to supply water for drinking purposes and any source or system containing unapproved water or substance that is not or cannot be approved as safe, wholesome, and potable. This ordinance revision updates Petaluma Municipal Code Sections 15.08, Connections to Water Supply System, 15.09, Cross-Connections and Backflow Control, and 15.12, Water Services Supplied by City to align with current Title 17 requirements.
DISCUSSION

In order to provide a framework to continue to ensure safe drinking water, staff recommends an update to Petaluma Municipal Code Sections 15.08, 15.09, and 15.12. This action incorporates Title 17 requirements for cross-connection control and adopts a $500 fine for cross-connection non-compliance, found in City of Petaluma Resolution No. 2017-076 N.C.S, Article V, Section 5.1. The ordinance also amends the language in Sections 15.08, 15.09, and 15.12 to reflect current requirements of Title 17, as well as conform to American Water Works Association (AWWA) standards and Petaluma Water System Construction Standards (800 Series). These changes will assist to ensure the drinking water system is adequately protected from the risks of backflow into the system.

It is recommended that the following sections be revised as noted, and as further illustrated in the attachments:

15.08.110 Service connection to be provided by water department [Action is to remove this section]

    Justification: Service connections are provided by the developer to each parcel. Parcels that are to be split are the responsibility of the owner.

15.08.230 Use of pump to elevate or increase water pressure

    Remove section “Exception: With prior approval of the city engineer and the fire marshal, a booster pump may be connected to the private property side of the meter and/or backflow preventer if such pump is designed with control systems and/or engineered calculations showing it will not allow the pump to reduce the city pressure below twenty pounds per square inch. In low pressure said installation(s) shall be evaluated for cumulative impacts to the city water main pressures and approved by the city.”

    Justification: The application described in the exception would be for low pressure areas where the pressure would already be too low for this type of system and would create problems for the pump motor and risk of damaging the City water line.

15.09.010 Authority, Purposes and Incorporation of California Title 17 regulations

    A. Title 17, Chapter V, Section 7583-7622: Update the language from the “California Administrative Code” to “California Code of Regulations”

    B. Title 17, Section 7583: Update the language from “the water purveyor” to “water supplier.”

    Justification: This change is to align language with the California Code of Regulations.

15.09.020 Responsibility

    Change responsible City employee from “the Director of Public Works/City Engineer” to “Public Works and Utilities Director and Chief Operator.”
Justification: This update aligns with Title 22 of the California Code of Regulations, Chapter 13, Section 63770 Distribution System Staff Certification Requirements. Determinations regarding the risk to the water system from cross-connection should be made in consultation with a licensed drinking water operator with the appropriate level of certification. Neither the Director of Public Works nor the City Engineer are required to possess the required licensing, but the chief operator does, so this change brings the City into compliance.

15.090.030 Definitions

B. Change the responsible City employee from “Director of Public Works/City Engineer” to “Public Works and Utilities Director and Chief Operator.”

Justification: As previously noted above in .020 Justification.

C. Change language from “water purveyor” and “purveyor” to “Water Supplier.”

Justification: Change to match with California Code of Regulations Title 17 Section 7583.

F. Add “approved.” “Backflow preventor” means an approved device designed to prevent backflow or back-siphonage listed in the University of Southern California (USC) Foundation for Cross Connection Control and Hydraulic Research List of Approved Backflow Prevention Assemblies.

Justification: Provides clarity to what devices are approved.

G. Change from Director of Public Works/City Engineer to “Public Works and Utilities Director and Chief Operator.”

Justification: As previously noted above in .020 Justification.

N. Chief Operator is as defined in CCR Title 22, Chapter 13, Section 63750.25

“Chief operator” means the person who has overall responsibility for the day-to-day, hands-on, operation of a water treatment facility or the person who has overall responsibility for the day-to-day, hands-on, operation of a distribution system.

Justification: Defines Chief Operator. N. Add “approved” and include “Double detector check valve assembly.”

Justification: Provides consistency with current standards and better clarity.

O. Part 4 – Revise “Class I and H” to “Class I and II.”

Justification: Corrects a typo.

Justification: As previously noted above in .020 Justification.

V. Water Service Connection definition; change language from “water purveyor” to “water supplier.”

Justification: Change to match with California Code of Regulations Title 17 Section 7583.

W. Water, Used; change language from “water purveyor” to “water supplier.”

Justification: Change to match with California Code of Regulations Title 17 Section 7583

15.09.040 Requirements for backflow-prevention devices

A. General Premises Requirements; change “Director of Public Works/City Engineer” to “Public Works and Utilities Director and Chief Operator.”

Justification: As previously noted in .020 Justification.

4. Update responsible City employee from “Director of Public Works/City Engineer” to “Public Works and Utilities Director and Chief Operator.”

Justification: As previously noted above in .020 Justification.

B. Approved Backflow-Prevention Device; Change “Director of Public Works/City Engineer” to “Public Works and Utilities Director and Chief Operator.”

Justification: As previously noted above in .020 Justification.

C. Specific Use and Type Requirements; Change “Director of Public Works/City Engineer” to “Public Works and Utilities Director and Chief Operator.”

Justification: As previously noted above in .020 Justification.

Revise the table in this section as noted below.

Justification: Provides consistency with Title 17 Sections 7584 and 7585 and the University of Southern California (USC) Foundation for Cross Connection Control and Hydraulic Research. List of Approved Backflow Prevention Assemblies.
<table>
<thead>
<tr>
<th><strong>Use</strong></th>
<th><strong>Type Device</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Auxiliary water system</td>
<td>Change Double Check valve to “Reduced Pressure”</td>
</tr>
<tr>
<td>Car Washes</td>
<td>Change Double check valve to “Reduced Pressure”</td>
</tr>
<tr>
<td>Fire protection system (Class I)</td>
<td>Change to “Double detector check valve – Commercial”</td>
</tr>
<tr>
<td>Fire protection system (Class IV)</td>
<td>Change to “Double check valve – residential”</td>
</tr>
<tr>
<td>Fire protection systems (Class III, V, VI)</td>
<td>Change to “Reduced Pressure”</td>
</tr>
<tr>
<td>Irrigation Systems (all)</td>
<td>Change to “Reduced pressure”</td>
</tr>
<tr>
<td>Multistory buildings</td>
<td>Change to “Reduced pressure check valve – commercial”</td>
</tr>
<tr>
<td>(3 or more stories) without booster pumps</td>
<td>Change to “ Double check valve – residential”</td>
</tr>
<tr>
<td></td>
<td>Change to “Double detector check valve – Commercial”</td>
</tr>
</tbody>
</table>

15.09.050 Installation of backflow prevention devices

B. Update “the Director of Public Works/City Engineer” to “Public Works and Utilities Director and Chief Operator.”

Justification: As previously noted above in .020 Justification.

C. Update “the Director of Public Works/City Engineer” to “Public Works and Utilities Director and Chief Operator.”

Justification: As previously noted above in .020 Justification.

15.09.060 Testing and repair of backflow-prevention devices

A. Update “the Director of Public Works/City Engineer” to “Public Works and Utilities Director and Chief Operator.”

Justification: As previously noted above in .020 Justification.

15.09.070 Work by city personnel

Add Item D. The customer shall be responsible to pay the city a fine(s) of $500 for overdue/non-compliant backflow-prevention test report(s).

Justification: If the customer does not arrange to have the backflow device tested, the City must conduct the testing. If the amount of the fine is too low, customers may choose to pay the fine rather than arranging to have the device tested by an approved tester. The $500 fine is equal to the tamper fee found in Resolution No. 2017-076 N.C.S, Article V, Section 5.1.

15.090.080 Requirements for certification of a backflow-prevention device tester
C. Change “Director of Public Works/City Engineer” to “water supplier.”

Justification: Change to match with California Code of Regulations Title 17 Section 7583.

15.12.200 Hydrants owned by public authority
   Change number of outlets to two 2 ½” outlets and one 4 ½” outlet for residential and add this section – and one 2 ½” outlet and two 4 ½” outlets for commercial.

   Justification: Update to industry standard.

PUBLIC OUTREACH

This agenda item appeared on the tentative agenda for January 7, 2020, which was a publicly noticed City Council meeting.

ALTERNATIVES

Not applicable.

FINANCIAL IMPACTS

There are no financial impacts to the City associated with the recommended ordinance amendments.

ATTACHMENTS

1. Ordinance
2. Redlined Municipal Code Changes
3. Municipal Code Changes
AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF PETALUMA
AMENDING CROSS-CONNECTIONS AND BACKFLOW CONTROL REGULATIONS
CONTAINED IN SECTIONS 15.08, 15.09, AND 15.12 OF THE PETALUMA
MUNICIPAL CODE

WHEREAS, the City of Petaluma needs to revise Water System Regulations contained in
Sections 15.08, 15.09, and 15.12 of the Petaluma Municipal Code to comply with current
requirements for Cross-Connections and Backflow Control as laid out in California Code of
Regulations Title 17, 22 and current City Water System Construction Standards (800 Series); and

WHEREAS, the City must periodically review and update its regulations for the Water
Cross-Connection Control Program to align with Title 17 and Title 22 of the California Code of
Regulations; and

WHEREAS, a review of the City’s Cross-Connection and Backflow Control Program
identified revisions that would result in compliance with the state regulations and industry
standards; and

WHEREAS, updating the City’s Cross-Connection and Backflow regulations provides
the Public Works and Utilities Department with authority to conduct appropriate and required
activities to ensure protection of the water system from backflow contamination; and

NOW, THEREFORE, BE IT ORDAINED by the City Council of the City of Petaluma
hereby as follows:

Section 1. Recitals Made Findings. The above recitals are hereby declared to be true and
correct and incorporated into this ordinance as findings of the City Council.

Section 2. Chapter 15 Amended. Chapter 15 of the Petaluma Municipal Code is amended to
read as follows:

Section 3. Severability. If any provision of this ordinance or the application thereof to any
person or circumstance is held invalid, the remainder of the ordinance, including the application
of such part or provision to other persons or circumstances shall not be affected thereby and shall continue in full force and effect. To this end, provisions of this ordinance are severable. The City Council hereby declares that it would have passed each section, subsection, subdivision, paragraph, sentence, clause, or phrase hereof irrespective of the fact that any one or more sections, subsections, subdivisions, paragraphs, sentences, clauses, or phrases may be held unconstitutional, invalid, or unenforceable.

Section 4. Effective Date/Referendum Period. This ordinance shall become effective thirty (30) days after the date of its adoption by the Petaluma City Council.

Section 5. Posting/Publishing of Notice. The City Clerk is hereby directed to post and/or publish this ordinance or a synopsis of it for the period and in the manner required by the City Charter. The City Clerk is also hereby directed to file a Notice of Exemption concerning this ordinance with the Office of the Sonoma County Clerk in accordance with Section 15062 of the CEQA Guidelines

INTRODUCED and ordered posted/published this ___ day of ________, 2020.

ADOPTED this _________ day of __________, 2020 by the following vote:
CHAPTER 15.08
CONNECTIONS TO WATER SUPPLY SYSTEM

15.08.110 Service connection to be provided by water department

Except for any connection made pursuant to Section 15.08.120, the water department will, upon payment of the applicable connection charge, furnish and install a service connection of suitable capacity from its water main to the curb line, or at its election, to the property line of any premises for which a connection to the water system is requested, provided such premises abut upon a public street or existing water main right-of-way on which a water main of the water system is located. (Ord. 544 NCS §11; prior code §27.16.)

15.08.230 Use of pump to elevate or increase water pressure.

Exception: With prior approval of the city engineer and the fire marshall, a booster pump may be connected to the private property side of the city meter and/or backflow preventer if such pump is designed with control systems and/or engineered calculations showing it will not allow the pump to reduce the city pressure below twenty pounds per square inch. In low pressure areas said installation(s) shall be evaluated for cumulative impacts to the city water main pressures and approved by the city. (Ord. 2402 NCS§2 (part), 2011: Ord 2085 NCS §1., 1999. Ord 544 NCS §11: prior code §27.21.)

CHAPTER 15.09
CROSS-CONNECTIONS AND BACKFLOW CONTROL

15.09.010 Authority, purpose and incorporation of California Title 17 regulations.

A. Title 17, Chapter V, Section 7583-7622, inclusive, of the California Administrative Code of Regulation, entitled “Regulations Relating to Cross-Connections,” set forth rules and regulations governing cross-connections. Said regulations are incorporated by reference and made a part of this code insofar as they are applicable to the protection of the public water supply.

B. Title 17, Section 7583 states, among other things, “The water purveyor-supplier has primary responsibility to prevent water from unapproved sources, or any other substance, from entering the public water supply system.” The city of Petaluma, hereinafter “city”, is a water purveyor-supplier within the meaning of Title 17.

C. In order to provide an orderly and adequate means of protection of the public water supply from backflow, the requirements set forth in this chapter are reasonable and necessary. The city adopts these requirements for the protection of the public water supply from backflow. New water service connections shall be installed and existing water service connections shall be modified to conform to these requirements.

(Ord. 1677 NCS §2 (part), 1987.)

15.09.020 Responsibility.
The Director of Public Works and Utilities and Chief Operator/city engineer shall be responsible for the protection of the public potable water supply from contamination or pollution due to the backflow or back-siphonage of contaminants or pollutants through the water service connection. (Ord 1677 NCS §2 (part), 1987.)

15.09.030 Definitions

For the purposes of this chapter, the words set out in this section shall have the following meanings:

A. “Air gap” means the 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 said vessel. An approved air gap shall be at least double the diameter of the supply pipe, and in no case less than one inch.

B. “Approved” means accepted by the Director of Public Works and Utilities and Chief Operator/city engineer as meeting an applicable specification stated or cited in this chapter.

C. “Auxiliary water supply” means any water supply on or available to the premises other than the water supplier approved public potable water supply. These auxiliary waters may include water from another supplier’s public potable water supply or any natural source(s) such as a well, spring, river, stream, harbor, etc., or “used waters” or “industrial fluids.” These waters may be polluted or contaminated or they may be objectionable and constitute an unacceptable water source over which the water supplier does not have sanitary control. Any well will be considered as an auxiliary supply unless abandoned to city standards.

D. “Backflow” means the flow of water or other liquids, mixtures or substances under pressure into the distributing pipes or a potable water supply system from any source or sources other than its intended source.

E. “Back-siphonage” means the flow of water or other liquids, mixtures or substances 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.

F. “Backflow preventer” means an approved device or means designed to prevent backflow or back-siphonage listed in the University of Southern California (USC) Foundation for Cross Connection Control and Hydraulic Research, List of Approved Backflow Prevention Assemblies.

G. “Certified tester” means a tester accepted by the Public Works/city engineer and Utilities Director and Chief Operator as meeting applicable requirements stated or cited in this chapter.

H. “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.

I. “Cross-connection” means any physical connection or arrangement of piping or fixtures between two otherwise separate piping systems, one of which contains potable and the other nonpotable water or industrial fluids of questionable safety, through which, or because of which,
backflow or back-siphonage 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 a 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, four-way plug valves, spools, dummy sections of pipe, swivel or charge-over devices, sliding multiport type, solid connections, etc.

J. Cross-connections, Controlled. “Controlled cross-connections” means a connection between a potable water system and a nonpotable water system with an approved backflow-prevention device properly installed that will continuously afford the protection commensurate with the degree of hazard.

K. “Cross-connection control by containment” means the installation of an approved backflow-prevention device at the water service connection to any customer’s premises where it is physically and economically infeasible to find and permanently eliminate or control all actual or potential cross-connections within the customer’s water system; or it means the installation of an approved backflow-prevention device on the service line leading to and supplying a portion of a customer’s water system where there are actual or potential cross-connections which cannot be effectively eliminated or controlled at the point of cross-connection.

L. “Customer” means any person or organization who receives water from the city water distribution system.

M. “Director of Public Works and Utilities” means the director of public works/city engineer of the city. Means the Director of Public Works of the City.

N. “Chief Operator” means the person who has overall responsibility for the day-to-day, hands-on, operation of a water treatment facility or the person who has overall responsibility for the day-to-day, hands-on, operation of a distribution system and is defined in CCR Title 22, Chapter 1 Section 63750.25

ON. “Double check-valve assembly” and “Double detector check valve assembly” means an approved 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 testing of each check valve and a bypass meter. 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 devices must be readily accessible for in-line maintenance and testing, and installed to city standards.

P. “Double detector check valve assembly” means an approved 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 testing of each check valve and a bypass meter. 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 devices must be readily accessible for in-line maintenance and testing, and installed to city standards.

Q. “Fire systems” means a fire-fighting system with a direct connection to the public potable water system that should be protected in a manner commensurate with the hazard. Fire protection systems may be classified as follows:
1. Class I. Direct connections from domestic water mains only; no pumps or reservoir, no physical connection from other water supplies; no antifreeze or other additives of any kind; and all sprinkler drains discharging to atmosphere, dry wells, or other safe outlets.

2. Class II. Same as Class I, except that booster pumps may be installed in the connection from the street mains. This type of installation is not allowed by the city. See section 15.08.230;

3. Class III. Direct connection from public water supply main plus one or more of the following: Elevated storage tanks; fire pumps taking suction from above ground covered reservoirs or tanks; or pressure tanks. All storage facilities are filled or connected to public water only; the water in the tanks to be maintained in a potable condition;

4. Class IV. Directly supplied from public mains similar to Class I and II, connections for fire pumper truck or with an auxiliary water supply on or available to the premises;

5. Class V. Directly supplied from public mains and interconnected with auxiliary supplies, such as pumps taking suction from reservoirs exposed to contamination or from rivers and ponds; driven wells; mills or other industrial water systems; or systems where anti-freeze or other additives are used;

6. Class VI. Combined industrial and fire protection systems supplied from the public water mains only, with or without gravity-storage or pump-suction tanks.

RP. Hazard, Degree of. “Degree of hazard” means the elevation of the potential risk to public health and the adverse effect of the hazard upon the potable water system as:

1. Hazard – Health. Any condition, device, or practice in the water supply system and its operation which could create, or in the judgement of the director of public works/city engineer of Public Works and Utilities and Chief Operator may create a danger to the health and well-being of the water consumer. An example of a health hazard is a structural defect, including cross-connections, in a water supply system.

2. “Hazard – Pluming”. A plumbing type cross-connection in a consumer’s potable water system 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”. An actual or potential threat to the physical properties of the water system or to the potability of the public or the consumer’s potable water system but which would constitute a nuisance or be aesthetically objectionable or could cause damage to the system or its appurtenances, but would not be dangerous to health.

4. “Hazard – System”. An actual or potential threat of severe damage to the physical properties of the public potable water system or the consumer’s potable water system, or of a pollution or contamination which would have a protracted effect on the quality of the potable water in the system.

Q. Double Detector Check Valve Assembly

SRQ. “Industrial fluids system” means 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 constituted a health, system, pollutional or plumbing hazard if introduced into an approved water supply. This may include, but 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, circulating cooling waters connected to an open cooling tower and/or cooling towers that are chemically or biologically treated or stabilized with toxic substances; contaminated natural waters such as from wells, springs, streams, rivers, bays, harbors, seas, irrigation canals or systems, etc.; oils, gases, glycerine paraffins caustic and acid solutions, and other liquid and gaseous fluids used for industrial or other purposes or for firefighting purposes.

TSR. “Pollution” means 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 unreasonably affect such waters for domestic use.

UTS. “Reduced pressure principle device” means as assembly of two independently operating approved check valves with an automatically operating differential relief valve between the two check valves, tightly closing shut-off valves on either side of the check valves, plus properly located test cocks for 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 assemblies. 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. In case of leakage of either of the check valves, the differential 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 according to city standards.

VUT. “Water, Nontpotable”. “Nonpotable water” means water which is not safe for human consumption or which is of questionable potability.

WWU. “Water, Potable”. “Potable water” means any water which, according to recognized standards, is safe for human consumption.

XWW. “Water service connection” means the terminal end of a service connection from the public potable water system; i.e., where the water purveyor-supplier 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 service connection, then the 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 waste system. 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.

YWW. “Water, Used”. “Used water” means any water supplied by a water purveyor-supplier from a public potable water system to a consumer’s water system after it has passed through the point of delivery and is no longer under sanitary control of the water purveyor-supplier.

(Ord. 1697 NCS §1, 1987: Ord. 1677 NCS §2 (part), 1987.)

15.09.040 Requirements for backflow-prevention devices.
A. General Premises Requirements. Backflow-prevention devices shall be required by the director of public works/city engineer and Utilities and Chief Operator for premises in the following described categories:

1. Premises having an auxiliary water supply;
2. Premises on which any substance is handled under pressure in such a fashion as to permit possible entry into the city’s distribution system, including water originated from the city’s system which is boosted in pressure.
3. Premises on which the customer’s system has more than one service connection;
4. Premises which, in the opinion of the director of Public Works and Utilities and Chief Operator, contain cross-connections, or the potential for cross-connections, which could result in the pollution or contamination of the city water system in the event of backflow or back-siphonage.

B. Approved Backflow-Prevention Device. Any backflow-prevention device required in this chapter shall be a model and size approved by the director of Public Works and Utilities and Chief Operator and appear on the city’s list of approved backflow-prevention devices. The term “approved backflow-prevention device” means a device that has been manufactured in full conformance with the standards established by the American Water Works Association entitled “AWWA C506-69 Standards for Reduced Pressure Principle and Double Check Valve Backflow Prevention Devices,” and have met completely the laboratory and field performance specifications of the Foundation for Cross-Connection Control and Hydraulic Research of the University of Southern California established by “Specifications of Backflow Prevention Devices – No. 69-2,” dated March, 1969, or the most current issue.

1. The AWWA standards of FCCC and HR specifications have been adopted by the director of Public Works and Utilities and Chief Operator. Final approval of any device or system proposed for installation under the terms of this chapter shall be evidenced by a “certificate of approval” issued by an approved testing laboratory, certifying full compliance with said AWWA standards and FCCC and HR specifications.

2. The following testing laboratory has been qualified by the director of Public Works and Utilities and Chief Operator to test and certify backflow preventers:

Foundation for Cross-Connection Control & Hydraulic Research
University of Southern California University Park

3. Testing laboratories other than the laboratory listed above will be accepted as they are qualified by the director of Public Works and Utilities and Chief Operator.

C. Specific Use and Type Requirements. For the following specific uses, and other uses as designated by the Chief Operator and Director of Public Works & Utilities, the customer shall be required to install a backflow-prevention device of the type indicated as a minimum.
<table>
<thead>
<tr>
<th>Use</th>
<th>Type Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>Animal kennels</td>
<td>Double check valve</td>
</tr>
<tr>
<td>Auxiliary water systems</td>
<td>Double Check valve Reduced Pressure</td>
</tr>
<tr>
<td>Beverage bottling plant</td>
<td>Double check valve</td>
</tr>
<tr>
<td>Buildings with booster</td>
<td>Air gap</td>
</tr>
<tr>
<td>Pump systems and/or Water storage tanks</td>
<td></td>
</tr>
<tr>
<td>Class II Fire System</td>
<td></td>
</tr>
<tr>
<td>Car washes</td>
<td>Double check valve Reduced Pressure</td>
</tr>
<tr>
<td>Film processors</td>
<td>Reduced pressure</td>
</tr>
<tr>
<td>Fire protection system (Class I)</td>
<td>Single check valve Double Detector Check - Commercial</td>
</tr>
<tr>
<td>Fire protection system (Class IV)</td>
<td>Single check valve Double Detector Check Valve</td>
</tr>
<tr>
<td>Fire protection systems (Class III, V, VI)</td>
<td>Reduced pressure</td>
</tr>
<tr>
<td>Hospitals/laboratories/clinics</td>
<td>Reduced pressure</td>
</tr>
<tr>
<td>Industrial and/or commercial (all)</td>
<td>Reduced pressure</td>
</tr>
<tr>
<td>Irrigation systems (all)</td>
<td>Double check valve Reduced Pressure</td>
</tr>
<tr>
<td>Marinas/Boat docks</td>
<td>Reduced pressure</td>
</tr>
<tr>
<td>Mortuaries, medical, dental building</td>
<td>Reduced pressure</td>
</tr>
<tr>
<td>Multistory buildings (3 or more Stories) without booster pump</td>
<td>Double Check Valve Reduced Pressure - Commercial</td>
</tr>
<tr>
<td>Plating facilities</td>
<td>Reduced pressure</td>
</tr>
</tbody>
</table>
Sand and gravel plants        Double check valve
Schools                      Reduced pressure
Sewage and storm drain       Air gap
Pumping facilities
Swimming pools               Reduced pressure
Tank trucks or chemical spray Air gap
Rigs

(Ord. 1697 NCS §2. 1987: Ord. 1677 NCS §2 (part), 1987.)

15.09.050 Installation of backflow-prevention devices.
A. It shall be the customer’s responsibility and at the customers’ expense to install a backflow-prevention device.

B. Only approved backflow-prevention devices, as stated or cited in this chapter, shall be installed. All devices shall be installed in accordance with city standards and a location approved by the city. At the time an application for a new water service is made by a potential customer, the director of Public Works and Utilities and Chief Operator will review said application to determine the need for a backflow-prevention device. The installation of a backflow-prevention device on a new water service shall be a condition of water service and meter installation. The city will inspect the premises of existing water service connections and shall require the installation of a backflow-prevention device, which in the opinion of the director of Public Works and Utilities and Chief Operator, the water connection may be subject to a potential hazard from backflow or back-siphonage. An existing backflow-prevention device which, in the opinion of the director of Public Works and Utilities and Chief Operator, is a type that does not provide adequate protection for the degree of potential hazard from backflow or back-siphonage shall be upgraded. Installation of a backflow-prevention device, where required by the Chief Operator and Director of Public Works & Utilities shall be installed and inspected within sixty days of said notification.

C. 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 inspection and testing requirements under Section 15.09.060 be excluded from the requirements of this chapter so long as the director of Public Works and Utilities and Chief Operator is assured that the devices will satisfactorily protect the public water system. Whenever an existing backflow-prevention devices is moved from its present location or requires more than minimum maintenance or when the director of public works/city engineer
finds that its maintenance may constitute a hazard to health, the device shall be replaced in accordance with the requirements of this chapter. (Ord. 1677 NCS §2 (part), 1987.)


A. It shall be the responsibility of the customer at any premises where backflow-prevention devices are installed to have certified inspections and operational tests performed at least once per year. In those instances where the director of Public Works and Utilities and Chief Operator deems the hazard to be great enough, he may require certified tests at more frequent intervals. Whenever said devices are found to be defective, they shall be repaired and immediately retested. All tests and repairs shall be performed only a certified tester as stated or cited in this chapter.

B. All tests and repairs shall be recorded by a certified tester on forms provided by the city. The customer shall ensure all forms are complete and submit them to the city. It shall be the city’s responsibility to ensure these timely tests and repairs are made and the city shall give the customer at least thirty days advance written notice of said requirements.

(Ord. 1677 NCS §2 (part). 1987.)

15.090.070 Work by city personnel.

A. Alternatively, at its options, and upon notification of the customer, approved city personnel may perform any or all of the inspection, testing, repair or installation of backflow-prevention devices as required by this chapter.

B. The customer shall be responsible to pay the city the actual cost of a backflow-prevention devices, its installation and/or repair.

C. The customer shall be responsible to pay the city any charges for inspection and testing of backflow-prevention devices as may be set from time to time by city council.

C.D. The customer shall be responsible to pay the city for fine(s) of $500 assessed as a result of overdue/non-compliant backflow-prevention test report(s), found in Resolution No. 2017-076 N.C.S, Article V, Section 5.1.

(Ord. 1677 NCS §2 (part). 1987.)

15.090.080 Requirements for certification of a backflow-prevention device tester.

A. Each applicant for certification as a tester of backflow-prevention devices shall file an approved application with the director of Public Works and Utilities and Chief Operator, together with a fee as may be established by the city council. Competency in all phases of backflow-prevention device testing and repair must be demonstrated by means of education and/or experience in order to obtain certification. The following are minimum requirements:

1. Satisfactory completion of the course for the training and certification for testers for backflow-prevention devices offered by the Foundation for Cross-Connection Control and Hydraulic Research, University of Southern California, or a valid backflow-prevention device
tester certificate from the American Water Works Association (AWWA) California-Nevada Section;

2. Each applicant for certification as a tester of backflow-prevention devices shall furnish evidence to show that the applicant has available the necessary tools and equipment to properly test such devices.

B. The certification issued to any successful applicant is valid for a time period set by the city and may revoked, suspended or not renewed by the city for improper testing, repairs and/or reporting. The tester shall be responsible for the competency and accuracy of all tests and reports that are prepared for submittal to the city. The city shall maintain a list of certified testers to be used by its customers for the testing and repair of backflow-prevention devices.

C. City personnel that have satisfactorily completed training as in subsection A1 of this section and have demonstrated their competency in all phases of backflow-prevention device testing and repair may be approved by the Director of Public Works & Utilities and Chief Operator to inspect, test and repair backflow-prevention devices for the City.

(Ord. 1677 NCS §2 (part), 1987.)

15.090.090 Right to enter customer’s property.
As a condition of water service for new customers and as a condition of continued water service for existing customers, the customer may be required to have a backflow-prevention device installed on their private property. The customer shall permit the city to enter upon the customer’s property within the normal working hours of the city, or in the case of emergency, at any time, to test, inspect, service, maintain, repair or replace the backflow-prevention device, as set forth in other sections of this chapter.
(Ord. 1677 NCS §2 (part), 1987.)

15.09.100 Discontinuance of service.
A. Water service to any premises may be disconnected by the city, if a backflow-prevention device required by this chapter is not installed, tested and/or maintained, or if any deficiency is found in the installation or operation of a backflow-prevention device, or if it is found that a backflow-prevention device has been removed, bypassed or tampered with, or for nonpayment of any charges as set forth by this chapter.

B. Whenever any premises has been disconnected from the water system for any violation of this chapter, such premises shall not be reconnected until such violation, condition, or defect is corrected and the customer has paid a reconnection charge to the city, according to Chapter 15.16.

(Ord. 1940 §2 (part), 1993.)
15.12.200

Number of outlets in standard outlets will be limited to two one half inch outlets, two 2 ½” outlets and one 4 ½” outlet for residential, and one 2 ½” outlet and two 4 ½” outlets for commercial. (Ord. 544 NCS §3. Prior code §27.40.)
CHAPTER 15.08
CONNECTIONS TO WATER SUPPLY SYSTEM

15.08.110 Service connection to be provided by water department

15.08.230 Use of pump to elevate or increase water pressure.


CHAPTER 15.09
CROSS-CONNECTIONS AND BACKFLOW CONTROL

15.09.010 Authority, purpose and incorporation of California Title 17 regulations.

A. Title 17, Chapter V, Section 7583-7622, inclusive, of the California Code of Regulation, entitled “Regulations Relating to Cross-Connections,” set forth rules and regulations governing cross-connections. Said regulations are incorporated by reference and made a part of this code insofar as they are applicable to the protection of the public water supply.

B. Title 17, Section 7583 states, among other things, “The water supplier has primary responsibility to prevent water from unapproved sources, or any other substance, from entering the public water supply system.” The City of Petaluma, hereinafter “City,” is a water supplier within the meaning of Title 17.

C. In order to provide an orderly and adequate means of protection of the public water supply from backflow, the requirements set forth in this chapter are reasonable and necessary. The City adopts these requirements for the protection of the public water supply from backflow. New water service connections shall be installed and existing water service connections shall be modified to conform to these requirements.

(Ord. 1677 NCS §2 (part), 1987.)

15.09.020 Responsibility.

The Director of Public Works and Utilities and Chief Operator shall be responsible for the protection of the public potable water supply from contamination or pollution due to the backflow or back-siphonage of contaminants or pollutants through the water service connection.

(Ord 1677 NCS §2 (part), 1987.)

15.09.030 Definitions

For the purposes of this chapter, the words set out in this section shall have the following meanings:
A. “Air gap” means the 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 said vessel. An approved air gap shall be at least double the diameter of the supply pipe, and in no case less than one inch.

B. “Approved” means accepted by the Director of Public Works and Utilities and Chief Operator as meeting an applicable specification stated or cited in this chapter.

C. “Auxiliary water supply” means any water supply on or available to the premises other than the water supplier approved public potable water supply. These auxiliary waters may include water from another supplier’s public potable water supply or any natural source(s) such as a well, spring, river, stream, harbor, etc., or “used waters” or “industrial fluids.” These waters may be polluted or contaminated, or they may be objectionable and constitute an unacceptable water source over which the water supplier does not have sanitary control. Any well will be considered as an auxiliary supply unless abandoned to City standards.

D. “Backflow” means the flow of water or other liquids, mixtures, or substances under pressure into the distributing pipes or a potable water supply system from any source or sources other than its intended source.

E. “Back-siphonage” means the flow of water or other liquids, mixtures, or substances 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.

F. “Backflow preventer” means an approved device or means designed to prevent backflow or back-siphonage listed in the University of Southern California (USC) Foundation for Cross Connection Control and Hydraulic Research. List of Approved Backflow Prevention Assemblies.

G. “Certified tester” means a tester accepted by the Public Works and Utilities Director and Chief Operator as meeting applicable requirements stated or cited in this chapter.

H. “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.

I. “Cross-connection” means any physical connection or arrangement of piping or fixtures between two otherwise separate piping systems, one of which contains potable and the other nonpotable water or industrial fluids of questionable safety, through which, or because of which, backflow or back-siphonage 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 a 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, four-way plug valves, spools, dummy sections of pipe, swivel, or charge-over devices, sliding multiport type, solid connections, etc.
J. Cross-connections, Controlled. “Controlled cross-connections” means a connection between a potable water system and a nonpotable water system with an approved backflow-prevention device properly installed that will continuously afford the protection commensurate with the degree of hazard.

K. “Cross-connection control by containment” means the installation of an approved backflow-prevention device at the water service connection to any customer’s premises where it is physically and economically infeasible to find and permanently eliminate or control all actual or potential cross-connections within the customer’s water system; or it means the installation of an approved backflow-prevention device on the service line leading to and supplying a portion of a customer’s water system where there are actual or potential cross-connections which cannot be effectively eliminated or controlled at the point of cross-connection.

L. “Customer” means any person or organization who receives water from the City water distribution system.

M. “Director of Public Works and Utilities” Means the Director of Public Works of the City.

N. “Chief Operator” means the person who has overall responsibility for the day-to-day, hands-on, operation of a water treatment facility or the person who has overall responsibility for the day-to-day, hands-on, operation of a distribution system and is defined in CCR Title 22, Chapter 1 Section 63750.25

O. “Double check-valve assembly” means an approved assembly of two independently operating approved check valves with tightly closing shutoff valves on each side of the check 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. To be approved, these devices must be readily accessible for in-line maintenance and testing and installed to City standards.

P. “Double detector check valve assembly” means an approved 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 testing of each check valve and a bypass meter. 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 devices must be readily accessible for in-line maintenance and testing and installed to City standards.

Q. “Fire systems” means a fire-fighting system with a direct connection to the public potable water system that should be protected in a manner commensurate with the hazard. Fire protection systems may be classified as follows:

1. Class I. Direct connections from domestic water mains only; no pumps or reservoir, no physical connection from other water supplies; no antifreeze or other additives of any kind; and all sprinkler drains discharging to atmosphere, dry wells, or other safe outlets.
2. Class II. Same as Class I, except that booster pumps may be installed in the connection from the street mains. This type of installation is not allowed by the City. See section 15.08.230;

3. Class III. Direct connection from public water supply main plus one or more of the following: Elevated storage tanks; fire pumps taking suction from above ground covered reservoirs or tanks; or pressure tanks. All storage facilities are filled or connected to public water only; the water in the tanks to be maintained in a potable condition;

4. Class IV. Directly supplied from public mains similar to Class I and II, connections for fire pumper truck or with an auxiliary water supply on or available to the premises;

5. Class V. Directly supplied from public mains and interconnected with auxiliary supplies, such as pumps taking suction from reservoirs exposed to contamination or from rivers and ponds; driven wells; mills or other industrial water systems; or systems where anti-freeze or other additives are used;

6. Class VI. Combined industrial and fire protection systems supplied from the public water mains only, with or without gravity-storage or pump-suction tanks.

R. “Degree of hazard” means the elevation of the potential risk to public health and the adverse effect of the hazard upon the potable water system as:

1. Hazard – Health. Any condition, device, or practice in the water supply system and its operation which could create, or in the judgement of the director of Public Works and Utilities and Chief Operator may create a danger to the health and well-being of the water consumer. An example of a health hazard is a structural defect, including cross-connections, in a water supply system.

2. “Hazard – Pluming.” A plumbing type cross-connection in the consumer’s potable water system 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.” An actual or potential threat to the physical properties of the water system or to the potability of the public or the consumer’s potable water system but which would constitute a nuisance or be aesthetically objectionable or could cause damage to the system or its appurtenances but would not be dangerous to health.

4. “Hazard – System.” An actual or potential threat of severe damage to the physical properties of the public potable water system or the consumer’s potable water system, or of a pollution or contamination which would have a protracted effect on the quality of the potable water in the system.

S. “Industrial fluids system” means 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 constituted a health, system, pollutional or plumbing hazard if introduced into an approved water supply. This may include, but 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, circulating cooling waters connected to an open cooling tower and/or cooling towers that are chemically or biologically treated or stabilized with toxic substances; contaminated natural waters such as from wells, springs, streams, rivers, bays, harbors, seas, irrigation canals or systems, etc.; oils, gases, glycerine paraffins caustic and acid solutions, and other liquid and gaseous fluids used for industrial or other purposes or for firefighting purposes.

T. “Pollution” means 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 unreasonably affect such waters for domestic use.

U. “Reduced pressure principle device” means as assembly of two independently operating approved check valves with an automatically operating differential relief valve between the two check valves, tightly closing shut-off valves on either side of the check valves, plus properly located test cocks for 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 assemblies. 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. In case of leakage of either of the check valves, the differential 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 according to City standards.

V. “Water, Nonpotable.” “Nonpotable water” means water which is not safe for human consumption or which is of questionable potability.

W. “Water, Potable.” “Potable water” means any water which, according to recognized standards, is safe for human consumption.

X. “Water service connection” means the terminal end of a service connection from the public potable water system; i.e., where the water supplier 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 service connection, then the 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 waste system. 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.

Y. “Water Used.” “Used water” means any water supplied by a water supplier from a public potable water system to a consumer’s water system after it has passed through the point of delivery and is no longer under sanitary control of the water supplier.

(Ord. 1697 NCS §1, 1987: Ord. 1677 NCS §2 (part), 1987.)
15.09.040 Requirements for backflow-prevention devices.

A. General Premises Requirements. Backflow-prevention devices shall be required by the director of public works and Utilities and Chief Operator for premises in the following described categories:

1. Premises having an auxiliary water supply;
2. Premises on which any substance is handled under pressure in such a fashion as to permit possible entry into the City’s distribution system, including water originated from the City’s system which is boosted in pressure.
3. Premises on which the customer’s system has more than one service connection;
4. Premises which, in the opinion of the director of Public Works and Utilities and Chief Operator, contain cross-connections, or the potential for cross-connections, which could result in the pollution or contamination of the City water system in the event of backflow or back-siphonage.

B. Approved Backflow-Prevention Device. Any backflow-prevention device required in this chapter shall be a model and size approved by the director of Public Works and Utilities and Chief Operator and appear on the City’s list of approved backflow-prevention devices. The term “approved backflow-prevention device” means a device that has been manufactured in full conformance with the standards established by the American Water Works Association entitled “AWWA C506-69 Standards for Reduced Pressure Principle and Double Check Valve Backflow Prevention Devices,” and have met completely the laboratory and field performance specifications of the Foundation for Cross-Connection Control and Hydraulic Research of the University of Southern California established by “Specifications of Backflow Prevention Devices – No. 69-2,” dated March, 1969, or the most current issue.

1. The AWWA standards of FCCC and HR specifications have been adopted by the director of Public Works and Utilities and Chief Operator. Final approval of any device or system proposed for installation under the terms of this chapter shall be evidenced by a “certificate of approval” issued by an approved testing laboratory, certifying full compliance with said AWWA standards and FCCC and HR specifications.

2. The following testing laboratory has been qualified by the director of Public Works and Utilities and Chief Operator to test and certify backflow preventers:
   Foundation for Cross-Connection
   Control & Hydraulic Research
   University of Southern California University Park

3. Testing laboratories other than the laboratory listed above will be accepted as they are qualified by the director Public Works and Utilities and Chief Operator.

C. Specific Use and Type Requirements. For the following specific uses, and other uses as designated by the Chief Operator and Director of Public Works & Utilities, the customer shall be
required to install a backflow-prevention device of the type indicated as a minimum listed in the University of Southern California (USC) Foundation for Cross Connection Control and Hydraulic Research. List of Approved Backflow Prevention Assemblies.

<table>
<thead>
<tr>
<th>Use</th>
<th>Type Device</th>
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<tbody>
<tr>
<td>Animal kennels</td>
<td>Double check valve</td>
</tr>
<tr>
<td>Auxiliary water systems</td>
<td>Reduced Pressure</td>
</tr>
<tr>
<td>Beverage bottling plant</td>
<td>Double check valve</td>
</tr>
<tr>
<td>Buildings with booster pump systems and/or water storage tanks Class II</td>
<td>Air gap</td>
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<tr>
<td>Fire System</td>
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<tr>
<td>Car washes</td>
<td>Reduced Pressure</td>
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<tr>
<td>Film processors</td>
<td>Reduced pressure</td>
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<tr>
<td>Fire protection system (Class I)</td>
<td>Double Detector Check - Commercial</td>
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<td>Double Check – Residential</td>
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<tr>
<td>Fire protection system (Class IV)</td>
<td>Double Detector Check Valve</td>
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<tr>
<td>Fire protection systems (Class III, V, VI)</td>
<td>Reduced pressure</td>
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<tr>
<td>Hospitals/laboratories/clinics</td>
<td>Reduced pressure</td>
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<tr>
<td>Industrial and/or commercial (all)</td>
<td>Reduced pressure</td>
</tr>
<tr>
<td>Irrigation systems (all)</td>
<td>Reduced Pressure</td>
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<tr>
<td>Marinas/Boat docks</td>
<td>Reduced pressure</td>
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<tr>
<td>Mortuaries, medical, dental building</td>
<td>Reduced pressure</td>
</tr>
<tr>
<td>Multistory buildings (3 or more stories) without booster pump</td>
<td>Double check valve - Residential</td>
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<tr>
<td></td>
<td>Reduced Pressure- Commercial</td>
</tr>
<tr>
<td>Plating facilities</td>
<td>Reduced pressure</td>
</tr>
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</table>
15.09.050 Installation of backflow-prevention devices.

A. It shall be the customer’s responsibility and at the customers’ expense to install a backflow-prevention device.

B. Only approved backflow-prevention devices, as stated or cited in this chapter, shall be installed. All devices shall be installed in accordance with City standards and a location approved by the City. At the time an application for a new water service is made by a potential customer, the director of Public Works and Utilities and Chief Operator will review said application to determine the need for a backflow-prevention device. The installation of a backflow-prevention device on a new water service shall be a condition of water service and meter installation. The City will inspect the premises of existing water service connections and shall require the installation of a backflow-prevention device, which in the opinion of the director of Public Works and Utilities and Chief Operator, the water connection may be subject to a potential hazard from backflow or back-siphonage. An existing backflow-prevention device which, in the opinion of the director of public works and Chief Operator, is a type that does not provide adequate protection for the degree of potential hazard from backflow or back-siphonage shall be upgraded. Installation of a backflow-prevention device, where required by the Chief Operator and Director of Public Works & Utilities shall be installed and inspected within sixty days of said notification.

C. 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 inspection and testing requirements under Section 15.09.060 be excluded from the requirements of this chapter so long as the director of Public Works and Utilities and Chief Operator is assured that the devices will satisfactorily protect the public water system. Whenever an existing backflow-prevention device is moved from its present location or requires more than minimum maintenance or when the director of public works/City engineer finds that its maintenance may constituted a hazard to
health, the device shall be replaced in accordance with the requirements of this chapter. (Ord. 1677 NCS §2 (part), 1987.)


A. It shall be the responsibility of the customer at any premises where backflow-prevention devices are installed to have certified inspections and operational tests performed at least once per year. In those instances where the director of Public Works and Utilities and Chief Operator deems the hazard to be great enough, he may require certified tests at more frequent intervals. Whenever said devices are found to be defective, they shall be repaired and immediately retested. All tests and repairs shall be performed only a certified tester as stated or cited in this chapter.

B. All tests and repairs shall be recorded by a certified tester on forms provided by the City. The customer shall ensure all forms are complete and submit them to the City. It shall be the City’s responsibility to ensure these timely tests and repairs are made and the City shall give the customer at least thirty days advance written notice of said requirements.

(Ord. 1677 NCS §2 (part). 1987.)

15.090.070 Work by City personnel.

A. Alternatively, at its options, and upon notification of the customer, approved City personnel may perform any or all of the inspection, testing, repair, or installation of backflow-prevention devices as required by this chapter.

B. The customer shall be responsible to pay the City the actual cost of a backflow-prevention devices, its installation and/or repair.

C. The customer shall be responsible to pay the City any charges for inspection and testing of backflow-prevention devices as may be set from time to time by City council.

D. The customer shall be responsible to pay the City for fine(s) of $500 assessed as a result of overdue/non-compliant backflow-prevention test report(s). found in Resolution No. 2017-076 N.C.S, Article V, Section 5.1.

(Ord. 1677 NCS §2 (part). 1987.)

15.090.080 Requirements for certification of a backflow-prevention device tester.

A. Each applicant for certification as a tester of backflow-prevention devices shall file an approved application with the water supplier, together with a fee as may be established by the City council. Competency in all phases of backflow-prevention device testing and repair must be demonstrated by means of education and/or experience in order to obtain certification. The following are minimum requirements:
1. Satisfactory completion of the course for the training and certification for testers for backflow-prevention devices offered by the Foundation for Cross-Connection Control and Hydraulic Research, University of Southern California, or a valid backflow-prevention device tester certificate from the American Water Works Association (AWWA) California-Nevada Section;

2. Each applicant for certification as a tester of backflow-prevention devices shall furnish evidence to show that the applicant has available the necessary tools and equipment to properly test such devices.

B. The certification issued to any successful applicant is valid for at time period set by the City and may revoked, suspended, or not renewed by the City for improper testing, repairs and/or reporting. The tester shall be responsible for the competency and accuracy of all tests and reports that are prepared for submittal to the City. The City shall maintain a list of certified testers to be used by its customers for the testing and repair of backflow-prevention devices.

C. City personnel that have satisfactorily completed training as in subsection A1 of this section and have demonstrated their competency in all phases of backflow-prevention device testing and repair may be approved by the Director of Public Works & Utilities and Chief Operator to inspect, test and repair backflow-prevention devices for the City.

(Ord. 1677 NCS §2 (part), 1987.)

15.090.090 Right to enter customer’s property.

As a condition of water service for new customers and as a condition of continued water service for existing customers, the customer may be required to have a backflow-prevention device installed on their private property. The customer shall permit the City to enter upon the customer’s property within the normal working hours of the City, or in the case of emergency, at any time, to test, inspect, service, maintain, repair or replace the backflow-prevention device, as set forth in other sections of this chapter. (Ord. 1677 NCS §2 (part), 1987.)

15.09.100 Discontinuance of service.

A. Water service to any premises may be disconnected by the City, if a backflow-prevention device required by this chapter is not installed, tested and/or maintained, or if any deficiency is found in the installation or operation of a backflow-prevention device, or if it is found that a backflow-prevention device has been removed, bypassed or tampered with, or for nonpayment of any charges as set forth by this chapter.

B. Whenever any premises have been disconnected from the water system for any violation of this chapter, such premises shall not be reconnected until such violation, condition, or defect is corrected and the customer has paid a reconnection charge to the City, according to Chapter 15.16.
CHAPTER 15.12
WATER SERVICES SUPPLIED BY CITY

15.12.200 Hydrants owned by public authority

Number of outlets in standard outlets will be limited to two 2 ½” outlets and one 4 ½” outlet for residential, and one 2 ½” outlet and two 4 ½” outlets for commercial. (Ord. 544 NCS §3. Prior code §27.40.)