

CROSS CONNECTION CONTROL PROGRAM
**STANDARD OPERATING PROCEDURES
AND GUIDELINES**

D R A F T

For the City of Brookings, OR

41-00149

November 2012

Prepared by
Backflow Management Inc.
www.bmi-backflow.com
800-841-7689
bmi@bmibackflow.com

SECTION 1

DEFINITIONS

Except where specifically designated in this section, all words used in this section shall carry their customary meanings. Any word, term, or phrase not found in this section shall be determined as set forth in the Oregon Health Authority's (OHA) Drinking Water Regulations or in the AWWA-PNWS Cross Connection Control Manual, if not found in such regulations.

- A) "Approved Air Gap (AG)" means a physical separation between the free-flowing discharge end of a potable water supply pipeline and an open or non-pressurized receiving vessel. An "Approved Air Gap" shall be at least twice the diameter of the supply pipe measured vertically above the overflow rim of the vessel and in no case less than 1 inch (2.54 cm), and in accord with Oregon Plumbing Specialty Code.
- B) "Approved Backflow Prevention Assembly" means an assembly, of a make, model, orientation, and size approved by the OHA Assemblies listed in the currently approved backflow prevention assemblies list developed by the University of Southern California, Foundation for Cross-Connection Control and Hydraulic Research, or other testing laboratories using equivalent testing methods, are considered approved by the OHA.
- C) "Auxiliary Water Supply" means any supply of water used to augment the supply obtained from the public water system, which serves the premises in question.
- D) "AWWA-PNWS Cross Connection Control Manual" means the latest version of the manual published by the American Water Works Association – Pacific Northwest Section and is endorsed by the State addressing cross connection control practices, which shall be used as a guidance document for the water supplier in implementing a Cross Connection Control Program.
- E) "Backflow" means the flow of water or other liquids, mixtures, or substances into the distributing pipes of a potable supply of water from any sources other than its intended source, and is caused by backsiphonage or backpressure.
- F) "Backflow Assembly Tester" or "BAT" means a person holding a valid Backflow Assembly Tester certification issued in accordance with the Oregon Health Authority.
- G) "Closed system" means any water system or portion of a water system in which water is closed to atmosphere.
- H) "Contaminant" means any physical, chemical, biological, or radiological substance or matter in water that creates a health hazard.
- I) "Cross connection" means any physical arrangement where the public water system is connected, directly or indirectly, actual or potential, with any other non-potable water system or auxiliary system, well, sewer, drain conduit, swimming pool, storage reservoir, plumbing

fixture, swamp cooler, or any other device which contains, or may contain, contaminated or polluted water, sewage, used water, or other liquid of unknown or unsafe quality which may be capable of imparting contamination or pollution to the public water system as a result of backflow. Bypass arrangements, jumper connections, removable sections, swivel or changeover devices, or other temporary or permanent devices through which, or because of which, backflow may occur are considered to be cross connections.

- J) “Cross Connection Specialist” or “CCS” or “Specialist” means a person holding a valid Cross Connection Specialist certification issued in accordance with the OHA, who is an employee or contractor of the city and meets the requirements of this Chapter 13.06 and the City’s Standard Operating Procedures Manual to carry out surveys for cross connections on behalf of the City.
- K) “Degree of Hazard” means either pollution (non-health hazard) or contamination (health hazard) and is determined by an evaluation of hazardous conditions within a system.
- L) “Double Check Detector Backflow Prevention Assembly (DCDA)” means a specially designed assembly composed of a line size approved double check valve assembly assembled with a bypass containing a specific water meter and an approved double check valve assembly. The meter shall register accurately for only very low rates of flow up to three gallons per minute and shall show a registration for all rates of flow. This assembly is designed to protect against a non-health hazard.
- M) “Double Check Valve Backflow Prevention Assembly (DC)” means an assembly of two independently acting approved check valves, including tightly closing resilient seated shutoff valves attached at each end of the assembly and fitted with properly located resilient seated test cocks. This assembly is designed to protect against a non-health hazard.
- N) “Drinking Water Regulations” means the most recent edition of the regulations adopted by the Oregon Health Authority.
- O) “Health Hazard (Contamination)” means an impairment of the quality of the water that could create an actual hazard to the public health through poisoning or through the spread of disease by sewage, industrial fluids, waste, or other substances.
- P) “In-premises protection” means a method of protecting the health of consumers served by the customer’s plumbing system (*i.e.* located within the property lines of the customer’s premises) by the installation of an approved air gap, backflow prevention assembly, or device at the point of hazard.
- Q) “Mobile unit” means a unit connecting to the public water system through a hydrant, hose bibb, or other appurtenance of a permanent nature that is part of the public water system. Examples include, but are not limited to, the following: water trucks, pesticide applicator vehicles, chemical mixing units or tanks, waste or septage hauler trucks or units, sewer cleaning equipment, carpet or steam cleaning equipment, rock quarry or asphalt/concrete batch plants, or any other mobile equipment or vessel. Uses that are excluded from this definition are recreational vehicles at assigned sites or parked in accordance with city ordinances pertaining to recreational vehicles, and homeowner devices that are used by the

property owner in accordance with city ordinances pertaining to the provision of water service to a premises.

- R) “Non-Health Hazard (Pollution)” means an impairment of the quality of the water to a degree that does not create a hazard to the public health, but does adversely affect the aesthetic qualities of such water for potable use.
- S) “Plumbing code” means the most current plumbing code adopted by the City.
- T) “Plumbing hazard” means an internal or plumbing-type cross connection in a consumer’s potable water system that may be either a polluttional or a contamination-type hazard. This includes, but is not limited to, cross connections to toilets, sinks, lavatories, wash trays, domestic washing machines, and lawn sprinkling systems. Plumbing-type cross connections can be located in all types of structures including, but not limited to, homes, manufactured homes, apartment houses, hotels, and commercial or industrial establishments.
- U) “Pollutant” means a substance that creates an impairment of the quality of the water to a degree which does not create a hazard to the public health, but which does adversely affect the aesthetic qualities of the water.
- V) “Potable water supply” means water which has sufficiently low concentrations of microbiological, inorganic chemical, organic chemical, radiological or physical substances so that individuals drinking such water at normal levels of consumption will not be exposed to disease organisms or other substances which may produce harmful physiological effects.
- W) “Premises” means any piece of property to which water is provided including, but not limited to, all improvements, mobile structures, and structures located on it.
- X) “Premises isolation” means a method of protecting the public water system by the installation of an approved air gap or approved backflow prevention assembly at the point of service (end of the city’s service pipe) to separate the customer’s plumbing system from the city’s distribution system.
- Y) “Public Water System” means a system for the provision to the public of piped water for human consumption, if such system has more than three service connections, or supplies water to a public or commercial establishment that operates a total of at least 60 days per year, and that is used by 10 or more individuals per day. Public water system also means a system for the provision to the public of water through constructed conveyances other than pipes to at least 15 service connections or regularly serves at least 25 individuals daily at least 60 days of the year. A public water system is a "Community Water System", a "Transient Non-Community Water System", a "Non-Transient Non-Community Water System" or a "State Regulated Water System"
- Z) “Reduced Pressure Principle Detector Backflow Prevention Assembly (RPDA)” means a specifically designed assembly composed of a line size approved reduced pressure principle backflow prevention assembly with a bypass containing a specific water meter and an approved reduced pressure principle backflow prevention assembly. The meter shall register accurately for only very low rates of flow up to three gallons per minute and

shall show a registration for all rates of flow. This assembly is designed to protect against a non-health hazard or a health hazard.

- AA) “Reduced Pressure Principle Backflow Prevention Assembly (RP)” means an assembly containing two independently acting approved check valves, together with a hydraulically operating, mechanically independent pressure differential relief valve located between the check valves and at the same time below the first check valve. The unit shall include properly located resilient seated test cocks and tightly closing resilient seated shutoff valves at each end of the assembly. This assembly is designed to protect against a non-health hazard or a health hazard.
- AB) “Standard Operating Procedures Manual” or “SOP Manual” means the most recent edition of the city’s Standard Operating Procedures Manual related to cross connection control.
- AC) “Supervisor” means the supervisor of Public Works or his/her designee.
- AD) “Thermal Expansion” means the pressure increase due to a rise in water temperature that occurs in water piping systems when such systems become “closed” by the installation of a backflow prevention assembly or other means, and will not allow for expansion beyond that point of installation.
- AE) “Unapproved substance” means any substance, gas, or liquid other than the city’s drinking water or the city’s used drinking water.
- AF) “Used water” means any water supplied by the city to a customer’s property after it has passed through the service connection and is no longer under the control of the city.

SECTION 2

ENFORCEMENT DOCUMENT

CITY OF BROOKINGS CROSS CONNECTION CONTROL ORDINANCE

Pursuant to Chapter 333, Division 61, of the Oregon Administrative Rules, it is the responsibility of the City of Brookings to protect the public water system from pollution and contamination by instituting and enforcing a cross connection control program.

1:01 PURPOSE

The purpose of this Ordinance is to protect the water supply and distribution system of the City of Brookings from contamination or pollution due to any existing or potential cross connections and to comply with the Oregon Administrative Rule Chapter 333-061-0070, 0071, 0072, 0073 and 0074 or as amended.

1:02 DEFINITIONS

For the purposes of this Ordinance, the following definitions shall apply unless the context clearly indicates or requires a different meaning. If a word or term used in this Ordinance is not contained in the following list, its definition, or other technical terms used, shall have the meanings or definitions listed in the Oregon Administrative Rules, Chapter 333, or the most recent edition of the *Manual of Cross Connection Control* published by the Foundation for Cross Connection Control and Hydraulic Research, University of Southern California ("USC").

- 1) "APPROVED BACKFLOW PREVENTION ASSEMBLY" or "BACKFLOW ASSEMBLY" or "ASSEMBLY" means an assembly to counteract backpressure and/or prevent back-siphonage. This assembly must appear on the list of approved assemblies issued by the Oregon Health Authority.
- 2) "AUXILIARY SUPPLY" means any water source or system other than the City of Brookings Water System.
- 3) "BACKFLOW" means the flow in the direction opposite to the normal flow or the introduction of any foreign liquids, gases, or substances into the water system of the City of Brookings.
- 4) "CERTIFIED BACKFLOW ASSEMBLY TESTER" shall mean a person who has successfully completed and maintains all requirements as established by the Oregon Health Authority to be a tester in the state of Oregon.

- 5) "CERTIFIED CROSS CONNECTION CONTROL SPECIALIST" shall mean a person who has successfully completed and maintains all requirements as established by the Oregon Health Authority to be a Specialist in the state of Oregon.
- 6) "CITY" shall mean the City of Brookings.
- 7) "CITY WATER SYSTEM" shall refer to and mean the City of Brookings Water System, which shall include, wells, treatment mechanisms or processes, pumping stations, reservoirs, supply trunk or feeder lines, service lines, meters and all other appurtenances, device lines and items necessary to the operation of the system and to supply water service to individual property or premises and shall include the City of Brookings potable water with which the system is supplied.
- 8) "CONTAMINATION" means the entry into or presence in a public water supply system of any substance which may be deleterious to health and/or quality of the water.
- 9) "CROSS CONNECTION" means any physical arrangement where a potable water supply is connected, directly or indirectly, with any other non-drinkable water system or auxiliary system, sewer, drain conduit, swimming pool, storage reservoir, plumbing fixture, swamp coolers or any other device which contains, or may contain, contaminated water, sewage or other liquid of unknown or unsafe quality which may be capable of imparting contamination to the public water system as a result of backflow. Bypass arrangements, jumper connections, removable sections, swivel or changeover devices or other temporary or permanent devices through which or because of which backflow may occur, are considered to be cross connections.
- 10) "DEGREE OF HAZARD" means the NON-HEALTH HAZARD or HEALTH HAZARD classification that shall be assigned to all actual or potential cross connections.
- 11) "DOUBLE CHECK VALVE BACKFLOW PREVENTION ASSEMBLY", "DOUBLE CHECK ASSEMBLY", "DOUBLE CHECK" or "DCVA" means an assembly which consists of two (2) independently-operating check valves which are spring-loaded or weighted. The assembly comes complete with a resilient seated shut-off valve on each side of the checks, as well as test cocks to test the checks for tightness.
- 12) "DOUBLE CHECK DETECTOR ASSEMBLY" or "DCDA" means an assembly which consists of two independently operating check valves which are spring-loaded or weighted. The assembly comes complete with a shut-off valve on each side of the checks, as well as test cocks to test the checks for tightness. It shall also be provided with a factory bypass arrangement with a meter and a minimum of an approved double check assembly.
- 13) "HEALTH HAZARD" means an actual or potential threat of contamination of a physical, chemical or biological nature to the public potable water system or the consumer's potable water system that would be a danger to health.

- 14) "IN-PREMISES PROTECTION" means the appropriate backflow prevention within the consumer's water system at or near the point at which the actual or potential cross connection exists.
- 15) "MOBILE UNITS" shall mean units that are temporary in nature, connecting to the water system through a legally-permitted hydrant, hose bibb, or other appurtenance of a permanent nature that is part of the City of Brookings water system or a permanent water service to a premises. Examples can include but are not limited to the following: water trucks, pesticide applicator vehicles, chemical mixing units or tanks, waste hauler's trucks or units, sewer cleaning equipment, carpet or steam cleaning equipment other than homeowner use, rock quarry or asphalt/concrete batch plants or any other mobile equipment or vessel that poses a threat of backflow in the City of Brookings Water System. Uses that are excluded from this definition are recreational vehicles at assigned sites or parked in accordance with other City of Brookings policies pertaining to recreational vehicles and homeowner devices that are used by the property owner in accordance with other provisions of this, or other, City of Brookings policies pertaining to provision of water service to a premises.
- 16) "NON-HEALTH HAZARD" shall mean the classification assigned to an actual or potential cross connection that could allow a substance that may be objectionable, but not hazardous to one's health, to backflow into the potable water supply.
- 17) "OHA" shall mean Oregon Health Authority.
- 18) "OAR" shall mean Oregon Administrative Rule.
- 19) "PERSON(S)" shall mean a natural person (individual), corporation, company, city, partnership, firm, Limited Liability Company, Joint Venture Company or city, and other such entity.
- 20) "POLLUTION HAZARD" means an actual or potential threat to the physical properties of the water system or the potability of the public or the consumer's potable water system, but which would not constitute a health or system hazard, as defined. The maximum intensity of pollution to which the potable water system could be degraded under this definition would cause minor damage to the system or its appurtenances.
- 21) "PREMISES" means any piece of property to which water service is provided, including, but not limited to, all improvements, mobile structures and other structures located upon it.
- 22) "PREMISES ISOLATION" means the appropriate backflow prevention at the service connection between the public water system and the premises. This location will be at or near the property line and downstream from the service connection meter.
- 23) "REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY" or "REDUCED PRESSURE PRINCIPLE ASSEMBLY" or "RP ASSEMBLY" shall mean an assembly containing two independently-acting approved check valves together with a hydraulically-operated, mechanically-independent pressure differential relief valve located between the check valves, and at the same time, below the first check valve. The assembly shall include properly located test cocks and two tightly closing shut-off valves.

- 24) “REDUCED PRESSURE DETECTOR ASSEMBLY” or “RPDA” shall mean an approved assembly consisting of two approved reduced pressure backflow assemblies, set in parallel, equipped with a meter on the bypass line to detect small amounts of water leakage or use. The assembly should include properly-located test cocks and two tightly closing shut off valves.
- 25) “RESIDENT” means a person or persons living within the area(s) served by the City of Brookings Water System.
- 26) “RETROFITTING” means to furnish a service connection with parts or equipment made available after the time of construction or assembly installation.
- 27) “SPECIALIST” means an Oregon Health Authority-certified Cross Connection Specialist, either employed with the City of Brookings or contracted by the City of Brookings.
- 28) “SOP Manual” shall mean the City’s Standard Operating Procedures and Guidance Manual.
- 29) “SUBMERGED HEADS” means irrigation sprinkling or delivery devices that are located below the surface of the landscaped area in which they are installed.
- 30) “SUPERVISOR” shall mean the Public Works Supervisor or his/her designee.
- 31) “THERMAL EXPANSION” means the pressure created by the expansion of heated water.

1:03 APPLICATION AND RESPONSIBILITIES

This Ordinance applies throughout the City of Brookings Water System and to every premises and property served by the City of Brookings Water System. It applies to all premises, regardless of date of connection to the City of Brookings Water System. Every owner, occupant or person in control of any concerned premises is responsible for the terms and provisions contained in this Ordinance.

1:04 CROSS CONNECTIONS REGULATED

- 1) No cross connections shall be created, installed, used or maintained within the area(s) served by the City of Brookings Water System, except in accordance with this Ordinance.
- 2) The Specialist shall carry out or cause surveys to be carried out to determine if any actual or potential cross connection exists. If found necessary, an assembly commensurate with the degree of hazard will be required at the service connection.
- 3) The owner, occupant or person in control of any given premises is responsible for all cross connection control within the premises.
- 4) All premises found on Table 48 of the OAR shall install a Reduced Pressure Backflow Assembly at the service connection in accordance with this Ordinance.

- 5) It is the responsibility of the property owner/occupant to purchase, install, test, repair and maintain all backflow assemblies.
- 6) If there is a change in ownership of any and all property within the City's service area, it shall be the responsibility of the new owner to determine that all assemblies are in compliance with this Ordinance.

1:05 BACKFLOW PREVENTION ASSEMBLY REQUIREMENTS

A Specialist employed by or under contract with the City of Brookings, shall determine the type of backflow assemblies to be installed within the City of Brookings Water System. All assemblies shall be installed at the service connection unless it is determined by the Specialist and approved by the Supervisor that in-premises protection would be adequate. An approved assembly shall be required in each of the following circumstances, but the Specialist is in no way limited to the following circumstances:

- 1) In the case of any premises where there is any material dangerous to health which is handled in such a fashion as to permit entry into potable water system, the potable water system shall be protected by an approved air gap separation or an approved reduced pressure principle backflow prevention assembly.
- 2) When the nature and extent of any activity at a premises, or the materials used in connection with any activity at premises, or materials stored at a premises, could contaminate or pollute the potable water supply.
- 3) When a premises has one (1) or more cross connections, as that term is defined in Section 1.
- 4) When internal cross connections are present that are not correctable.
- 5) When intricate plumbing arrangements are present making it impractical to ascertain whether cross connections exist.
- 6) When the premises has a repeated history of cross connections being established or re-established.
- 7) When entry to the premises is restricted so that surveys for cross connections cannot be made with sufficient frequency to assure cross connections do not exist.
- 8) When materials are being used such that, if backflow should occur, a health hazard could result.
- 9) When an appropriate cross connection survey report form has not been filed with the City of Brookings Supervisor.
- 10) Any and all used water return systems.
- 11) If an in-premises assembly has not been tested or repaired as required by this Ordinance, the

installation of a reduced pressure principle assembly will be required at the service connection.

- 12) There is piping or equipment for conveying liquids other than potable City of Brookings water and that piping or other equipment is under pressure and installed and operated in a manner that could cause a cross connection.
- 13) When installation of an approved backflow prevention assembly is deemed by a Specialist to be necessary to accomplish the purpose of this Ordinance.
- 14) The use of any type of chemical spray attachment connected to the premises plumbing, including garden hose fertilizers and pesticide applicators, is not allowed within the City of Brookings Water System without proper protection from the potential of backflow occurring.
- 15) The use of any type of radiator flush kits attached to the premises plumbing is not allowed within the City of Brookings Water System without proper protection from backflow occurring.
- 16) Wherever reclaimed water or separate irrigation water is used on premises.
- 17) When there is a premises with an auxiliary water supply which is interconnected to the City of Brookings Water Service or supply system.

1:06 NEW CONSTRUCTION

- 1) On all new non-residential construction, an approved backflow assembly shall be installed at the service connection. The type of the assembly will be commensurate with the degree of hazard as determined by a Specialist.
- 2) When a building is constructed on commercial premises, and the end use of the building is not determined or could change, a reduced pressure principle backflow prevention assembly shall be installed at the service connection to provide protection of the public water supply in the event of the most hazardous use of the building.

1:07 RETROFITTING

Retrofitting shall be required at all service connections where an actual or potential cross connection exists, and wherever else the City of Brookings deems retrofitting necessary to comply with the OAR, this Ordinance and the City's SOP Manual.

1:08 IRRIGATION SYSTEMS

All irrigation systems shall be protected according to the Uniform Plumbing Code. In the event any system is equipped with an injector system, a reduced pressure principle assembly will be required at

the service connection.

1:09 THERMAL EXPANSION

If a closed system has been created by the installation of a backflow prevention assembly, or other appurtenances, it is the responsibility of the property owner, the occupant, or person in control of the property to eliminate the possibility of damage from thermal expansion in accordance with the Plumbing Code.

1:10 MOBILE UNITS

Any mobile unit or apparatus, as defined in Section 1:02 Subsection (15) of this Ordinance, which uses the water from any premises within the City of Brookings Water System, shall first obtain a permit from the City of Brookings and be inspected to assure an approved air gap or reduced pressure principle assembly is installed on the unit.

1:11 INSTALLATION REQUIREMENTS

All backflow prevention assembly installations shall follow the requirements as stipulated by the City of Brookings and current OAR Chapter 333, Division 061 and the City's SOP Manual.

If the premises isolation assembly is allowed to be installed at an alternate location, the City of Brookings must have access to the assembly. No connections can be made between the meter and the backflow assembly.

The type of backflow prevention assembly required shall be commensurate with the degree of hazard that exists and must, at all times, meet the standards of the Oregon Health Authority. All backflow prevention assemblies required under this section shall be of a type and model approved by the OHA.

1:12 PRESSURE LOSS

Any decrease in water pressure caused by the installation of a backflow assembly shall not be the responsibility of the City of Brookings.

1:13 FIRE SYSTEMS

An approved double check detector assembly shall be the minimum protection on all new fire sprinkler systems using piping material that is not approved for potable water use, and/or that does not provide for periodic flow-through. A reduced pressure principle detector assembly must be installed, if any solution other than potable water can be introduced into the sprinkler system. Retrofitting on fire sprinkler systems will be required in each of the following circumstances:

- A) Where improper maintenance has occurred
- B) On all health hazard systems
- C) Wherever a Specialist deems necessary
- D) Wherever required by the OAR

In the event an assembly is installed on a designated lateral, a detector assembly commensurate with the degree of hazard will be required.

1:14 TEMPORARY METERS AND HYDRANT VALVES

Backflow protection will be required on all temporary meters and hydrant valves before any use. The type of assembly will be commensurate with the degree of hazard and will be determined on a case-by-case basis by a City of Brookings Specialist.

1:15 PLUMBING CODE

As a condition of water service, customers shall install, maintain, and operate their piping and plumbing systems in accordance with the current Uniform Plumbing Code, or as amended. If there is a conflict between this Ordinance and the Plumbing Code, the more stringent supersedes.

1:16 RIGHT-OF-WAY ENCROACHMENT

All backflow assemblies must be installed in accordance with the Right-of-Way Encroachment stipulated by the City's "Right of Way" Encroachment Document.

1:17 ACCESS TO PREMISES

Authorized personnel of the City of Brookings, with proper identification and sufficient notice, shall have access during reasonable hours to all parts of a premises and within the structure to which water is supplied. However, if any owner, occupant or person in control refuses authorized personnel access to a premise, or to the interior of a structure, during these hours for inspection, a reduced pressure principle assembly must be installed at the service connection to that premise.

1:18 ANNUAL TESTING AND REPAIRS

All backflow prevention assemblies installed within the area(s) served by the City of Brookings shall be tested immediately upon installation, and at least annually thereafter by an OHA certified backflow assembly tester. All such assemblies found not functioning properly shall be promptly repaired or replaced at the expense of the owner, occupant or person in control of the premises. In the event an assembly is moved, repaired or replaced it must be retested immediately. All repairs on backflow assemblies within the City of Brookings service area must be performed according to all State and County regulations.

1:19 MAINTENANCE OF ASSEMBLIES

Backflow prevention assemblies shall be maintained, tested and repaired in accordance with the requirements set out in this Ordinance, the City's SOP Manual, the OAR and all applicable State agency's regulations. The assembly owner is responsible for protecting their assembly from freezing and vandalism.

In the event an assembly is not properly tested and repaired, the City of Brookings will have the assembly tested and repaired and apply all costs associated with this to the assembly owner's utility bill.

1:20 RESPONSIBILITIES OF BACKFLOW PREVENTION ASSEMBLY TESTERS

- 1) All backflow assembly testers operating within the City of Brookings Water System service area shall be certified in accordance with all applicable regulations of the OHA and must abide by the requirements of this Ordinance and the City's SOP Manual.
- 2) Persons certified as backflow assembly testers shall agree to abide by all requirements of the United States Occupational Safety and Health Administration ("OSHA") and Oregon Occupational Safety and Health Administration ("OR-OSHA").
- 3) It is the responsibility of backflow assembly testers to submit records of all backflow assembly test reports to the City of Brookings within 10 days of completing the test.

1:21 COSTS OF COMPLIANCE

All costs associated with purchase, installation, surveys, testing, replacement, maintenance, parts and repairs of the backflow prevention assembly, and all costs associated with enforcement of this document, are the financial responsibility of the property owner, occupant, or other person in control of the premises.

1:22 RECOVERY OF COSTS

Any water customer violating any of the provisions of this Ordinance and who causes damage to or impairs the City of Brookings Water System, including, but not limited to, allowing contamination, pollution, any other solution or used water to enter the City of Brookings Water System, shall be liable to the City of Brookings for any expense, loss or damage caused by such violation. The City of Brookings shall collect from the violator the cost incurred by the City of Brookings for any cleaning, purifying, repair or replacement work or any other expenses caused by the violation. Refusal to pay the assessed costs shall constitute a violation of this Ordinance and shall result in the termination of service. All cost associated with any disconnect or reconnect fees resulting from the enforcement of this Ordinance are the sole responsibility of the property owner.

1:23 TERMINATION OF SERVICE

Failure on the part of any owner, occupant or person in control of the premises to install a required assembly, have it tested a minimum of annually and repaired if necessary, and/or to discontinue the use of all cross connections and to physically separate cross connections in accordance with this Ordinance is sufficient cause for the discontinuance of public water service to the premises pursuant to Oregon Administrative Rule chapter 333-061-0070, or as amended. In the case of an extreme emergency or where an immediate threat to life or public health is found to exist, discontinuance or termination of public water service to the premises shall be immediate.

In lieu of termination of service, the City of Brookings may, at the property owner's expense, install a reduced pressure assembly at the meter. Testing, maintenance and repair of the assembly will be the responsibility of the property owner.

1:24 FALSIFYING INFORMATION

Any person who knowingly makes any false statement, representation, record, report or other document filed or required to be maintained pursuant to this Ordinance, or who falsifies, tampers with, or knowingly renders inaccurate any backflow assembly, device or method required under this Ordinance shall be subject to civil and/or criminal penalties provided by state law.

1:25 CONSTITUTIONALITY AND SAVING CLAUSE

Should any provision, section, sentence, clause or phrase of this Ordinance, or the application of same to any person or set of circumstances, are for any reason held to be unconstitutional, void, invalid, or for any reason unenforceable, the validity of the remaining portions of this Ordinance, or its application to other persons or circumstances, shall not be affected; thereby, it being the intent of the City of Brookings Water System in adopting and approving this Ordinance that no portion hereof or provision or regulation contained herein shall become inoperative or fail by reason of any unconstitutionality or invalidity of any other portion, provision, or regulation.

SECTION 3

PUBLIC EDUCATION AND OUTREACH (See accompanying Public Education packet)

1. Newspapers and Periodicals

- A) An educational cross connection control article should be provided to water users annually. This article can be provided as a bill stuffer, in local newspapers or in utility newsletters, etc. All articles must be approved by the City's Cross Connection Specialist.
- B) Some public education topics that are helpful to cross connection control programs are:
- The cross connection control enforcement document
 - Hazards of backflow
 - Types of protection from backflow
 - Federal Safe Drinking Water Act and State Regulations
 - Hazards of backflow contamination from fire systems
 - Hazards of backflow contamination from underground irrigation systems
 - Requirements of mobile water-using vehicles and equipment
 - Aspects of a cross connection control survey
 - The relationship between the most current plumbing code adopted by the City and cross connection control enforcement document
 - Violation and penalty procedures
 - Backflow and water conservation
 - Updates relative to the industry
- C) All articles and related publications should be kept on file in the cross connection control program records. Document when and how they were distributed.

2. Electronic Media

- A) If applicable, the articles and publications written for the print media should be the basis for local broadcasts.
- B) Place articles and publications on the water city's website.

3. Establish a cross connection library

- A) A library of all public community education cross connection information distributed by the city should be kept on file.
- B) A library of examples of public community education cross connection information



City of Brookings

898 Elk Drive, Brookings, OR 97415

(541) 469-1137 Fax (541) 469-3650

dcolbyhanks@brookings.or.us

February 21, 2013

J. Michael Perry
Public Health Division
Program Coordinator
P.O. Box 14450
Portland, OR 97293

RE: Draft Cross Connection Ordinance

Dear Michael,

Thank you for taking the time to answer my very poorly worded questions. I have included the draft Cross Connection Ordinance. As we discussed the Council is concerned that the City's cross connection program not require anything beyond what is required in the OAR.

Please review and provide your thoughts. Your time is very much appreciated.

Donna

Donna Colby-Hanks
Planning Manager