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**41-00164**  
**ORDINANCE 02-03**

TECHNICAL SERVICES  
DRINKING WATER PROGRAM

AN ORDINANCE AMENDING THE MUNICIPAL CODE, CHAPTER 13.04, ARTICLE 11, WATER SYSTEM CROSS-CONNECTIONS

The City of Cannon Beach does ordain as follows:

Section 1. The Cannon Beach Municipal Code, Chapter 13.04, Water System, Article II, Cross-connections, is deleted in its entirety and replaced with the following:

**CITY OF CANNON BEACH**

**CROSS CONNECTION CONTROL ORDINANCE**

AN ORDINANCE PROVIDING A CROSS CONNECTION CONTROL PROGRAM

Pursuant to Chapter 333, Division 61, of the Oregon Administrative Rules, it is the responsibility of the City of Cannon Beach to protect its drinking water by instituting and enforcing a cross connection control program.

A CROSS CONNECTION CONTROL ORDINANCE FOR THE CITY OF CANNON BEACH IS HERBY PROVIDED:

**PURPOSE**

The purpose of this ordinance is to protect the water supply and distribution system of the City of Cannon Beach 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, and 0073 or as amended.

**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 9<sup>th</sup> 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) "AIR GAP" means a physical separation between the free-flowing end of a potable water supply pipeline and the overflow rim of an open or nonpressure-receiving vessel. To be an "approved air gap," the separation must be at least twice the diameter of the inlet piping (supply pipe) measured vertically, and never be less than 1 inch.
- (2) "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 State Health Division and excludes external AVBs and external PVBs.
- (3) "APPROVED POTABLE WATER SUPPLY" means any system of water supply intended or

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used for human consumption or other domestic use as approved by the City of Cannon Beach and regulated by the Oregon Health Division as a Public Water Supply.

- (4) "ATMOSPHERIC VACUUM BREAKER (AVB) - also known as syphon breaker - means a mechanical device consisting of a valve member opening to the atmosphere when the pressure in the line drops to atmospheric and shall be an approved backflow prevention assembly.
- (5) "AUXILIARY SUPPLY" means any water source or system other than the public water system, that may be available in the building or on the property.
  - (a) Approved - An auxiliary water supply which has been investigated and approved by the health authority, meets water quality regulations, and is accepted by the water purveyor.
  - (b) Unapproved - An auxiliary water supply which is not approved by the health authority.
- (6) "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 Cannon Beach.
- (7) "CERTIFIED BACKFLOW ASSEMBLY TESTER" shall mean a person who has successfully completed and maintains all requirements as established by the Oregon Health Division to be a tester in the state of Oregon.
- (8) "CITY" means the City of Cannon Beach.
- (9) "CITY WATER SYSTEM" shall refer to and mean the City of Cannon Beach Water System, which shall include, treatment mechanisms or processes, pumping stations, reservoirs, supply trunk or feeder lines, service lines, meters and all other appurtenances, device lines and things necessary to the operation of the system and to supply water service to individual property or premise and shall include the City's potable water with which the system is supplied.
- (10) "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.
- (11) "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.
- (12) "CCC MANAGER" means Cross Connection Control Manager or their designee for the City of Cannon Beach.
- (13) "DEGREE OF HAZARD" means the LOW or HIGH HAZARD classification that shall be assigned to all actual or potential cross connections.
- (14) "DESIGNATED LATERAL" shall mean the piping which takes water from the main service line for a stipulated purpose. For example, but not limited to, irrigation systems, fire systems, etc.

- (15) "DIRECTOR" means the Public Works Director of the City of Cannon Beach or his/her designee.
- (16) "DOUBLE CHECK VALVE BACKFLOW PREVENTION ASSEMBLY" or "DOUBLE CHECK ASSEMBLY" or "DOUBLE CHECK" means an assembly which consists of two (2) 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.
- (17) "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.
- (18) "HIGH HAZARD" means the classification assigned to an actual or potential cross connection that potentially could allow a substance that may cause illness or death to backflow into the potable water supply.
- (19) "INSPECTOR" means a person who has successfully completed and maintains all requirements as established by the Oregon Health Division to be an inspector in the state of Oregon. Inspector may be employed with the City of Cannon Beach or contracted by the City of Cannon Beach.
- (20) "LOW HAZARD" means the classification assigned to an actual or potential cross connection that potentially could allow a substance that may be objectionable, but not hazardous to one's health, to backflow into the potable water supply.
- (21) "MAIN LATERAL" shall mean the piping which takes water from the main service line to the premise for potable use.
- (22) "MOBILE UNITS" shall mean units connecting to the water system through a hydrant, hosebib, or other appurtenance of a permanent nature that is part of the city water system or a permanent water service to a premise. Examples can include but are not limited to the following: water trucks, pesticide applicator vehicles, chemical mixing units or tanks, waste or septage haulers trucks or units, sewer cleaning equipment, carpet or steam cleaning equipment other than for homeowner use, 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 other city ordinances 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 Cannon Beach Ordinances pertaining to provision of water service to a premise.
- (23) "OHD" means Oregon Health Division
- (24) "POINT OF USE ISOLATION" 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.
- (25) "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 a nuisance or be aesthetically objectionable or could cause minor damage to the system or its appurtenances.

- (26) "PREMISES" or "PREMISE" 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.
- (27) "PREMISE 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.
- (28) "PRESSURE VACUUM BREAKER ASSEMBLY (PVB)" means a mechanical device consisting of one spring loaded check valves in the supply line and a spring loaded air inlet on the downstream side of the check valve(s) which will open to atmosphere when the pressure in the device drops below one pound per square inch. The complete assembly consists of two shut-off valves and two test ports for checking water tightness of the check valve. The Assembly shall be an approved backflow prevention assembly.
- (29) "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.
- (30) "RESIDENT" means a person or persons living within the area(s) served by the City water system.
- (31) "RETROFITTING" means to furnish a service connection with parts or equipment made available after the time of construction or assembly installation.
- (32) "SUBMERGED HEADS" means irrigation sprinkling or delivery devices that are located below the surface of the landscaped area in which they are installed.
- (33) "THERMAL EXPANSION" means the pressure created by the expansion of heated water.
- (34) "USED WATER" means water supplied by a public water system to a water user's system after it has passed through the service connection.

#### **APPLICATION AND RESPONSIBILITIES**

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

#### **CROSS CONNECTIONS REGULATED**

- (1) No cross connections shall be created, installed, used or maintained within the territory served by the City of Cannon Beach, except in accordance with this ordinance.
- (2) The CCC Manager for the City shall carry out or cause inspections to be carried out and/or send out surveys to each resident. These surveys must be completely filled out and returned, as requested. If found necessary, an assembly commensurate with the degree of hazard will be required to be installed at the service connection.
- (3) The resident is responsible for all cross connection control within the premises.
- (4) The use of any type of chemical spray attachment connected to the premise plumbing, including garden hose fertilizers and pesticide applicators, is prohibited within the City's water system without proper protection from the potential of backflow occurring.
- (5) The use of any type of radiator flush kits attached to the premise plumbing is prohibited within the City's water system without proper protection from the potential of backflow occurring.

### **BACKFLOW PREVENTION ASSEMBLY REQUIREMENTS**

A certified Cross Connection Inspector shall determine the type of backflow assemblies to be installed within the City of Cannon Beach's water system. All assemblies shall be installed at the service connection unless it is determined by the Inspector and approved by the Director that it should be installed at the point of use. If a point-of-use assembly has not been tested or repaired as required by this Ordinance, a backflow prevention assembly commensurate with the degree of hazard required at the service connection. An assembly shall be required in each of the following circumstances:

- (1) When the nature and extent of any activity at a premises, or the materials used in connection with any activity at a premises, or materials stored at a premises, could contaminate or pollute the potable water supply.
- (2) When a premises has one (1) or more cross connections as that term is defined in Section 1.
- (3) When internal cross connections are present that are not correctable.
- (4) When intricate plumbing arrangements are present making it impractical to ascertain whether cross connections exist.
- (5) When the premises has a repeated history of cross connections being established or re-established.
- (6) When entry to the premises is restricted so that inspections for cross connections cannot be made with sufficient frequency to assure cross connections do not exist.
- (7) When materials are being used such that, if backflow should occur, a health hazard could result.
- (8) When an appropriate cross connection survey report form has not been filed with the City of Cannon Beach CCC Manager.
- (9) On any and all used water return systems.

- (10) When there is a premises with an unapproved auxiliary water supply which is or can be connected to the City of Cannon Beach's water service or supply system.
- (11) On all non-residential multi-story buildings or any building with a booster pump or elevated storage tank.
- (12) Where there is piping or equipment for conveying liquids other than potable City 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 a premise has a unapproved water auxiliary supply.
- (14) When installation of an approved backflow prevention assembly is deemed by an Inspector to be necessary to accomplish the purpose of this Ordinance.

### **RETROFITTING**

Retrofitting shall be required on all service connections where an actual or potential cross connection exists, and wherever else the City deems retrofitting necessary.

### **LANDSCAPE IRRIGATION SYSTEMS**

All landscape irrigation systems shall be protected with a minimum of a double check. In the event any system is equipped with an injector system, or has submerged heads a reduced pressure principle assembly will be required.

### **THERMAL EXPANSION**

It is the responsibility of the property owner, the occupant, or person in control of the property to eliminate the possibility of damage to the public system from thermal expansion if a closed system has been created by the installation of a backflow prevention assembly or other appurtenances.

### **MOBILE UNITS**

Any mobile unit or apparatus, as defined in Section 1 of this Ordinance, which uses the water from any premises within the City's water system, shall first obtain a permit from the City and be inspected to assure an approved air gap or reduced pressure principle assembly is installed on the unit.

### **INSTALLATION REQUIREMENTS**

All backflow prevention assembly installations shall follow the requirements as stipulated by the Oregon Administrative Rules 333-061-0070 section 8, and Section 1 through 4 of OAR 333-061-0071, or as amended.

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 Division. All backflow prevention assemblies required under this section shall be of a type and model approved by the Oregon Health Division.

## **PRESSURE LOSS**

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

## **FIRE SYSTEMS**

An approved double check detector assembly shall be the minimum protection on fire sprinkler systems using piping material that is not approved for potable water use and/or does not provide for periodic flow-through during each 24 hour period. A reduced pressure principle detector assembly ("RPDA") must be installed if any solution other than the potable water can be introduced into the fire sprinkler system.

## **PLUMBING CODE**

As a condition of water service, customers shall install, maintain, and operate their piping and plumbing systems in accordance with the Oregon Specialty Plumbing Code, or as amended. If there is a conflict between this Ordinance and the Plumbing Code, consultation of the CCC Manager and City Building Official will render a decision for appropriate protection of the City water system.

## **ACCESS TO PREMISES**

Authorized personnel of the City of Cannon Beach, with proper identification and sufficient notice, shall have access during reasonable hours to all parts of a premise and within the structure to which water is supplied. 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 shall be installed at the service connection to that premise.

## **ANNUAL TESTING AND REPAIRS**

All backflow prevention assemblies installed within the area(s) served by the City shall be tested immediately upon installation, and at least annually thereafter by an Oregon Health Division certified backflow prevention 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 premise. In the event an assembly is moved, repaired or replaced it must be retested immediately. If any such assembly is not promptly repaired or replaced, the City of Cannon Beach shall deny or discontinue water service to the premise.

## **RESPONSIBILITIES OF BACKFLOW PREVENTION ASSEMBLY TESTERS**

- (1) All backflow assembly testers operating within the City of Cannon Beach water system service area shall be certified in accordance with all applicable regulations of the Oregon Health Division (OHD).
- (2) Persons certified as backflow prevention 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"); and have completed confined space entry training to enter any confined space within the City.

- (3) No person shall operate as a backflow prevention assembly tester within the City of Cannon Beach without first being annually registered with the City of Cannon Beach Cross Connection Control Program.
- (4) At the time of registration, recertification, and/or upon the City of Cannon Beach's request, each person certified as a backflow prevention assembly tester shall furnish evidence to show that they are insured and bonded to perform services, have a current valid OHD backflow assembly tester certification, and have proof of gauge accuracy verification within the previous year.

### **COSTS OF COMPLIANCE**

All costs associated with purchase, installation, inspections, testing, replacement, maintenance, parts, and repairs of the backflow prevention assembly are the financial responsibility of the property owner.

### **TERMINATION OF SERVICE**

Failure on the part of any owner, occupant or person in control of the premise, to install or maintain backflow assemblies as required 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 premise 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 premise shall be immediate. In all other cases discontinuance or termination of public water service to the premise shall be taken upon 20 days written notice of the failure to comply with the provisions of this ordinance. The City may grant an extension of the 20 day correction period if it is demonstrated to the satisfaction of the city that corrective action has begun and cannot be completed within 20 days.

### **APPEALS**

Any appeals concerning compliance with this article are to be heard by the Public Works Committee. Any decision by the Public Works Committee may be appealed to the City Council.

### **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 Cannon Beach 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.

THIS ORDINANCE shall be effective on February 8, 2002.

PASSED by the Common Council of the City of Cannon Beach this 8th day of January, 2002 by the following vote:



YEAS:

NAYS:

ABSENT:

SUBMITTED to the Mayor this 8th day of January, 2002 and APPROVED by the Mayor this 8th day of January, 2002.

\_\_\_\_\_  
Laurel B. Hood, Mayor

ATTEST:

\_\_\_\_\_  
Helen Westbrook, City Manager

REVIEWED:

\_\_\_\_\_  
William Canessa, City Attorney

