

ORDINANCE NO. 387

AN ORDINANCE REGULATING WATER SERVICE AND PROHIBITING CROSS CONNECTIONS; AND REPEALING ORDINANCE NO. 288; AND DECLARING AN EMERGENCY.

WHEREAS, the City of Cascade Locks enacted ordinance No. 288 on August 12, 1991 to implement the City's backflow cross connection program; and

WHEREAS, the Cross Connection Specialist of the Department of Public Works, having completed training and obtaining certification, is recommending changes to the City's Cross Connection Control Ordinance No. 288 to improve the City of Cascade Locks cross connection program.

THE CITY OF CASCADE LOCKS, HOOD RIVER COUNTY, OREGON, ORDAINS AS FOLLOWS:

OPENING PARAGRAPH

Pursuant of Chapter 333-66-0070 of Oregon Administrative Rules, it is the responsibility the water purveyors for the City of Cascade Locks to protect it's drinking water by instituting and enforcing a cross connection program. Water suppliers shall undertake cross connection control programs to protect the public water system from pollution and contamination. The water supplier's responsibility for cross connection control shall begin at the water supply source, include all public treatment, storage, and distribution facilities under the water supplier's control, and end at the point of delivery to the water user's system.

SECTIONS

- 1 Definitions
- 2 Purpose
- 3 Application and Responsibilities
- 4 Cross Connections Regulated
- 5 Backflow Prevention Assembly Requirements
- 6 New Construction
- 7 Retrofitting
- 8 Lawn Irrigation
- 9 Thermal Expansion
- 10 Wholesale Customers
- 11 Mobile Units
- 12 Installation Requirements
- 13 Effects of Backflow Assembly Installation
- 14 Fire Systems
- 15 Plumbing Code
- 16 Access to Premises
- 17 Annual Testing and Repairs
- 18 Responsibilities of Backflow Prevention Assembly Testers
- 19 Cost of Compliance
- 20 Termination of Service
- 21 Notification of Water Treatment

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Drinking Water Program

22 Emergency Clause

SECTION 1. Definitions. For the purpose of this Chapter, the following definitions shall apply unless the context clearly indicates or requires a different meaning. If a word or term used in this Chapter is not contained in the following list, its definition, or other technical terms used, shall have the meanings or definitions listed in 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 AIR GAP (AG)**” means a physical separation between the free-flowing discharge end of a potable water supply pipeline and the overflow rim of an open or non-pressurized receiving vessel. An “Approved Air Gap” shall be at least twice the diameter of the supply pipe measured vertical above the overflow rim of the vessel and in no case less than 1 inch and in accord with Oregon Plumbing Specialty Code.
- (2) “**APPROVED BACKFLOW PREVENTION ASSEMBLY**” or “**BACKFLOW ASSEMBLY**” or “**ASSEMBLY**” means an assembly to counteract backpressure and/or prevent back-siphonage, such as, a Reduced Pressure Principle Backflow Assembly(**RPBA**), Reduced Pressure Principle-Detector Backflow Prevention Assembly(**RPDA**), Double Check Valve Backflow Prevention Assembly(**DCVA**), Double Check-Detector Backflow Assembly(**DCDA**), Pressure Vacuum Breaker Backsiphonage Prevention Assembly(**PVB**), or Spill-Resistant Pressure Vacuum Breaker Backsiphonage Prevention Assembly(**SVB**), of a make, model, orientation, and size approved by the Oregon Department of Human Services.
- (3) “**ATMOSPHERIC VACUUM BREAKER (AVB)**” means a device consisting of an air inlet valve or float check, a check seat and an air inlet port(s). This device allows air to enter the water line when the line pressure is reduced to a gauge pressure of zero or below. This device is designed to protect against a non-health or a health hazard under a backsiphonage condition only.
- (4) “**AUXILIARY WATER SUPPLY**” means any water source or system other than the City’s water supply system that may actually or potentially become a cross connection.
- (5) “**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. Backflow occurs due to a differential pressure existing between two different points within a continuous fluid system and may occur due to either backsiphonage or backpressure.
- (6) “**BACKPRESSURE**” means an elevation of pressure downstream of the distribution system that would cause, or tend to cause, water to flow in the opposite direction.
- (7) “**BACKSIPHONAGE**” means a drop in distribution system pressure below atmospheric pressure (partial vacuum), that would cause, or tend to cause, water to flow in the opposite direction.
- (8) “**CERTIFIED BACKFLOW CONNECTION SPECIALIST**” or “**SPECIALIST**” means a person who has successfully completed and maintains all requirements as established the Oregon Department of Human Services to be a Specialist in the state of Oregon.

- (9) **“CERTIFIED BACKFLOW ASSEMBLY TESTER”** means a person who has successfully completed and maintains all requirements as established by the Oregon Department of Human Services to be a tester in the State of Oregon.
- (10) **“CITY”** means the City of Cascade Locks.
- (11) **“CITY WATER SYSTEM”** means the City of Cascade Locks Water System, which shall include, it’s wells, pumping stations, reservoirs, supply trunk or feed 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.
- (12) **“CONTAMINATION”** means the entry into or presence in a public water supply system of any substance which may be detrimental to health and/or quality of water.
- (13) **“CROSS CONNECTION”** means any physical arrangement where a potable water supply is connected, directly or indirectly, with any other non-potable or unapproved water supply 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, gases, or other liquids of an 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 could occur, are considered to be cross connections.
- (14) **“DEGREE OF HAZARD”** means **HEALTH** (*high risk*) or **NON-HEALTH** (*low risk*) **HAZARD** classification that shall be attached to all actual or potential cross connections.
- (15) **“DHS”** means Oregon Department of Human Services.
- (16) **“DIRECTOR”** means the Public Works Superintendent or his/her designee.
- (17) **“DOUBLE CHECK VALVE BACKFLOW PREVENTION ASSEMBLY (DCVA)”** 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.
- (18) **“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.
- (19) **“NON-HEALTH HAZARD (POLLUTION)”** means an impairment of the quality 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.
- (20) **“OAR”** means Oregon Administrative Rules.
- (21) **“POINT OF USE ISOLATION”** means the appropriate backflow prevention within the consumer’s water system at the point at which the actual or potential cross connection exists.
- (22) **“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 of 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.

- (23) **"POTABLE WATER SUPPLY"** means any system of water supply intended or used for human consumption or other domestic use.
- (24) **"PREMISE"** means any piece of property to which water is provided, including, but not limited to, all improvements, mobile structures and structures located on it.
- (25) **"PREMISE ISOLATION"** means the appropriate backflow prevention at the service connection between the public water system and the premises.
- (26) **"PRESSURE VACUM BREAKER BACKSIPHONAGE PREVENTION ASSEMBLY (PVB)"** means a device consisting of one of more spring loaded check valves and an independently operating air inlet valve installed as a unit between two tightly closing shut-off valves. The air inlet valve is internally loaded to the open position.
- (27) **"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 health hazard.
- (28) **"RESIDENT"** means a person or persons living within the territory served by the City or Cascade Locks.
- (29) **"RETROFITTING"** means to furnish a service connection with parts or equipment made available after the time of construction or assembly installation.
- (30) **"THERMAL EXPANSION"** means the pressure c related by the expansion of heated water.

SECTION 2. Purpose. The purpose of this Chapter is to protect the water supply of the City of Cascade Locks from contamination or pollution due to any existing or potential cross connections and to comply with OAR 333-061-0070, 0071, 0072, 0073, and 0074 as presently in effect or as hereafter amended.

SECTION 3. Application and Responsibilities. This Chapter applies throughout the City of Cascade Locks and to every premises and property served by the City of Cascade Locks Water System. It applies to any premise, public or private, regardless of date of connection to the City Water System. Every owner, occupant and person in control of any concerned premise is responsible for compliance with the terms and provisions contained herein.

SECTION 4. Cross Connection Regulated.

- (1) No cross connection shall be created, installed, used or maintained within the territory served by the City, except in accordance with this Chapter.
- (2) The Director shall carry out or cause inspections to be carried out to determine if any actual of potential cross connection exists. If found necessary, an assembly

commensurate with the degree of hazard will be required to be installed at the service connection.

- (3) The owner, occupant and person in control are 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 backflow occurring.
- (6) All premises which appear on Table 1 of Chapter 33-061 of the OAR will be required to have a RP assembly at the service connection.

SECTION 5. Backflow Prevention Assembly Requirements. A Specialist employed by or under contract with the City shall determine the type of backflow assemblies to be installed within the City's water service area. All assemblies shall be installed at the service connection unless it is determined by the Specialist and approved by the Director that it should be installed at the point of use. An assembly shall be required in each of the following circumstances, but the Director is not limited to just these circumstances:

- (1) When the nature and extent of any activity at a premise, or the materials used in connection with any activity at premises, or materials stored at 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 this Chapter.
- (3) When internal cross connections are present that is not correctable.
- (4) When intricate plumbing arrangements are present that make 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 that 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 Director.
- (9) Any and all used water returns systems.
- (10) If a point-of-use assembly that is protecting the City's distribution system has not been tested or repaired as required by this Chapter, the installation of a reduced pressure principle assembly will be required at the service connection at the premises owner expense.
- (11) When there is upon the premises an auxiliary water supply that is or can be connected to the City's or supply system.
- (12) All multi-story buildings and any building with a booster pump or elevated storage tank.
- (13) 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.
- (14) All services 2" or larger.

- (15) When installation of an approved backflow prevention assembly is deemed by a Specialist to necessary to accomplish the purpose of these regulations.
- (16) All presently installed backflow prevention assemblies or devices which do not meet the requirements of approved backflow prevention assemblies required by OAR 333-061-0070, but were approved assemblies or devices for the purpose described herein at the time of installation and which have been properly maintained, shall be allowed to remain in service, so long as they perform satisfactory and pass backflow test requirements. Whenever such existing device is moved from its present location, or the degree of hazard changes, or requires more than minimum maintenance, the device or assembly shall be replaced by a backflow prevention assembly that meets current requirements.

SECTION 6. New Construction.

- (1) In all new nonresidential 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 hazard use of the building.
- (3) In all new construction where a backflow prevention assembly is required must be tested immediately upon installation.

SECTION 7. 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.

SECTION 8. Lawn Irrigation. All lawn irrigation systems may be protected by an ATMOSPHERIC PRESSURE VACUUM BREAKER (**AVB**) or a PRESSURE VACUUM BREAKER BACKSIPHONAGE PREVENTION ASSEMBLY (**PVB**) when properly installed. These devices do not provide adequate protection if they are subject to flooding, back pressure, or if compressed air is used to winterize the system. In these situations, double check valve assemblies shall be used. In the event any system is equipped with an injector system or has submerged heads, a reduced pressure principle will be required.

SECTION 9. Thermal Expansion. It is the responsibility of the property owner, lessee, and person in control of the property to eliminate the possibility of damage from thermal expansion, if a closed system has been created by the installation of a backflow prevention assembly.

SECTION 10. Wholesale Customers. Any customer that has a contract for water services with the City must have an active, ongoing cross connection program. The cross connection program must be approved by the Director. The Director reserves the right to require a reduced pressure principle assembly at the interconnect.

SECTION 11. Mobile Units. Any mobile unit or apparatus which uses the City's water, or water from any premises within the City's system, shall first obtain written permission and pay all required fees. Water can only be obtained from the hydrant specified by the City. Fees will be set by Council Resolution.

SECTION 12. Installation Requirements. All backflow prevention assembly installations shall follow the requirements set forth in the Oregon Administrative Rules (OAR)

33-061-0070 and (OAR) 333-061-0071, or 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 DHS; all backflow prevention assemblies required under this section shall be of a type and model approved by the DHS.

SECTION 13. Effects of Backflow Assembly Installation. The City shall in no way be responsible or held liable for any decrease in water pressure or other negative effect cause by the installation of a backflow assembly.

SECTION 14. Fire System. 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 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.

SECTION 15. 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 Chapter and the Plumbing Code, the more restrictive provision shall apply.

SECTION 16. Access To Premises. Authorized City personnel shall have access during reasonable *business* hours (***Monday through Friday, excluding holidays, 8:00 AM to 6:00 PM***) to all parts of a premise and within the structure to which water is supplied, to determine whether cross connections or other structural or sanitary hazards, including violation of these regulations, exist. ***Every effort will be made to schedule an appointment within ten (10) days to check such backflow systems unless it is deemed an immediate threat to the City water system.*** When such a condition becomes known, the Director of the utility shall deny or immediately discontinue the service to the premises by a physical break in service until the condition has been corrected. 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 at the owners expense.

SECTION 17. Annual Testing and Repairs. The owner of the premise served by the City assume all responsibility for testing, maintenance, and repair of the installed approved backflow prevention assembly, and shall have any and all assemblies tested immediately upon installation. All backflow assemblies are required to be tested by a Certified Backflow Prevention Assembly Tester annually (***1 time each year***) or more often in those instances where successive inspections indicate failure. All such assemblies found not functioning properly shall be promptly repaired or replaced immediately 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 an assembly is not promptly repaired or replaced, the Director may deny or discontinue water service to the premise.

SECTION 18. Responsibilities of Backflow Prevention Assembly Testers.

- (1) All backflow assembly testers operating within The City of Cascade Locks shall be certified in accordance with all applicable regulations of the DHS.
- (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 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 Cascade Locks without first being annually registered with the Director.
 - (4) At the time of registration, recertification, and/or upon the Director's request, each person certified as a backflow prevention assembly tester shall furnish evidence to show that he/she is insured and bonded to perform services, has a current valid DHS backflow assembly tester certification, and have proof of gauge accuracy verification within the past year.
 - (5) All test reports must be turned into the City within 10 working days following the completion of the test.
 - (6) Approved backflow assembly device testers may be required to notify the Director in advanced when the test is to be undertaken so that City representatives may witness any or all test to be performed.

SECTION 19. Costs of Compliance. All cost associated with purchase, installation, inspections, testing, replacement, maintenance, parts and repairs of the backflow prevention assembly are the financial responsibility of the property owner.

SECTION 20. Termination of Service.

(1) Failure on the part of any owner, occupant or person in control to install an approved backflow device, conduct an annual test on a backflow device, or to discontinue the use of all cross connections and to physically separate cross connections in accordance with this Chapter is sufficient cause for the immediate discontinuance of public water service to the premises.

SECTION 21. Notification of Water Treatment. Whenever any water user or the owner of the premises obtaining water from the City water system treats the water in any way or adds any chemical to the water before the water exits the premises plumbing, they shall notify the City in advance of doing so.

SECTION 22. Repeal of Prior Ordinances. City of Cascade Locks Ordinance No. 288 and amendments thereto are hereby repealed.

SECTION 23. Severability. Should any section, subsection, paragraph, sentence, clause or phrase of this ordinance be declared invalid, such declaration shall not affect the validity of any other section, subsection, paragraph, sentence, clause, or phrase; and if this ordinance, or any portion thereof, should be held to be invalid on one ground but valid on another, it shall be construed that the valid ground is the one upon which said ordinance, or such portion thereof, was enacted.

SECTION 24. Emergency Clause. In as much as this Ordinance is necessary for the immediate preservation of health, peace, and safety, an emergency is hereby declared to exist, and this Ordinance shall be in full force and effect immediately upon its passage and approval by the Mayor.

SECTION 25. Effective Date. This ordinance shall become effective on May 24, 2006.

ADOPTED by the City Council this 12th day of June, 2006.

APPROVED by the Mayor this 12th day of June, 2006.

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Mayor

ATTEST:

City Recorder

First Reading Approved: 05/22/06; Ayes 5; Nays 2.

Second Reading Approved: 06/12/06; Ayes 6; Nays 1.