ORDINANCE NO. 412

AN ORDINANCE AMENDING THE CROSS CONNECTION PROGRAM, AMENDING THE DRAIN PUBLIC IMPROVEMENT CODE SECTIONS 7.005, 7.110, 7.115, 7.120, REPEALING ORDINANCES NO. 346 & 356 AND DECLARING AN EMERGENCY.

NOW, THEREFORE, THE CITY OF DRAIN ORDAINS AS FOLLOWS:

1.00 TABLE OF CONTENTS.

- 1.01 Purpose
- 1.02 Definitions
- 1.03 Application and Responsibilities
- 1.04 Cross Connections Regulated
- 1.05 Backflow Prevention Assembly Requirements
- 1.06 New Construction
- 1.07 Retrofitting
- 1.08 Irrigation Systems
- 1.09 Thermal Expansion
- 1.10 Mobile Units
- 1.11 Installation Requirements
- 1.12 Pressure Loss
- 1.13 Fire Systems
- 1.14 Temporary Meters and Hydrant Valves
- 1.15 Plumbing Code
- 1.16 Right-of-Way Encroachment
- 1.17 Access to Premises
- 1.18 Annual Testing and Repairs
- 1.19 Maintenance of Assemblies
- 1.20 Responsibilities of Backflow Prevention Assembly Testers
- 1.21 Costs of Compliance
- 1.22 Recovery of Costs
- 1.23 Termination of Service
- 1.24 Falsifying Information
- 1.25 Constitutionality and Saving Clause

Pursuant to Chapter 333, Division 61, of the Oregon Administrative Rules, it is the responsibility of the City of Drain 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 Drain 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 <u>DEFINITIONS</u>.

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").

Drain Public Improvement Code Section 7:005 is amended to add the following definitions in alphabetical order as follows:

- (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 Department of Human Services Health Services.
- (2) "AUXILIARY SUPPLY" means any water source or system other than the City of Drain 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 Drain.
- (4) "CERTIFIED BACKFLOW ASSEMBLY TESTER" shall mean a person who has successfully completed and maintains all requirements as established by the Department of Human Services Health Services 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 Department of Human Services Health Services to be a Specialist in the state of Oregon.
- (6) "CITY WATER SYSTEM" shall refer to and mean the City of Drain 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 Drain's potable water with which the system is supplied.

- (7) "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.
- (8) "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.
- (9) "DEGREE OF HAZARD" means the NON-HEALTH HAZARD or HEALTH HAZARD or HIGH HAZARD classification that shall be assigned to all actual or potential cross connections.
- (10) "DHS" means Department of Human Services Health Services.
- (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.
- "MOBILE UNITS" shall mean units that are temporary in nature, connecting to the water system through a hydrant, hosebib, or other appurtenance of a permanent nature that is part of the City of Drain's 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 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 Drain water system.

Uses that are excluded from this definition are recreational vehicles at assigned sites or parked in accordance with other City of Drain 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 Drain policies pertaining to provision of water service to premises.

- (15) "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.
- (16) "OAR" shall mean Oregon Administrative Rule.
- (17) "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.
- (18) "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.
- (19) "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.
- (20) "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.
- (21) "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.
- (22) "PUBLIC WORKS FOREMAN" shall mean supervisor of the Public Works Department.
- "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.
- (25) "RESIDENT" means a person or persons living within the area(s) served by the City of Drain's 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 a Department of Human Services Health Services certified cross connection Specialist, either employed with the City of Drain or contracted by the City of Drain.
- (28) "SUBMERGED HEADS" means irrigation sprinkling or delivery devices that are located below the surface of the landscaped area in which they are installed.
- (29) "THERMAL EXPANSION" means the pressure created by the expansion of heated water.

1.03 <u>APPLICATION AND RESPONSIBILITIES.</u>

This Ordinance applies throughout the City of Drain Water System and to every premises and property served by the City of Drain Water System. It applies to all premises, regardless of date of connection to the City of Drain 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 Drain 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 installed 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 requiring isolation as stipulated by 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.

1.05 BACKFLOW PREVENTION ASSEMBLY REQUIREMENTS.

A Specialist employed by or under contract with the City of Drain, shall determine the type of backflow assemblies to be installed within City of Drain's Water System. All assemblies shall be installed at the service connection unless it is determined by the Specialist and approved by the Public Works Foreman that it should be installed at the point of use or alternate location. 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.
- 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 a premise, could contaminate or pollute the potable water supply.
- (3) When a premise has one (1) or more cross connections, as that term is defined in Section 1.02 (8).
- (4) When internal cross connections are present that are not correctable.
- When intricate plumbing arrangements are present making it impractical to ascertain whether cross connections exist.
- (6) When the premise has a repeated history of cross connections being established or reestablished.
- (7) When entry to the premise 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 Drain Specialist or on file at City Hall.
- (10) Any and all used water return systems.
- (11) If a point-of-use 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 Drain water and that piping or other equipment is under pressure and installed and operated in a manner that could cause a cross connection.
- 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 Drain's 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 Drain's Water System without proper protection from backflow occurring.
- (16) Wherever reclaimed water is used on premises.
- Where there is a premise with an auxiliary water supply which is connected directly to the City supply.
- When a service has been inactive for 6 months or longer a survey will be required by the specialist and it is determined a cross connection exists.
- (19) Wherever required by the current OAR.

1.06 <u>NEW CONSTRUCTION.</u>

- (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.
- 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 Drain deems retrofitting necessary to comply with the OAR, this Ordinance and the most current edition of the City of Drain's Written Program Plan.

1.08 <u>IRRIGATION SYSTEMS.</u>

All irrigation systems shall be protected according to plumbing code regulations. In the event any system is equipped with an injector system, a reduced pressure principle assembly will be required.

1.09 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 from thermal expansion, if a closed system has been created by the installation of a backflow prevention assembly, or other appurtenances.

1.10 MOBILE UNITS.

Any mobile unit or apparatus, as defined in Section 1.02 (14) of this Ordinance, which uses the water from any premises within the City of Drain Water System, shall first obtain a permit from the City of Drain and be inspected to assure an approved air gap or reduced pressure principle assembly is installed on the unit.

All mobile units must use the bulk fill up station provided by the City.

1.11 <u>INSTALLATION REQUIREMENTS.</u>

All backflow prevention assembly installations shall follow the requirements as stipulated by the City.

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 Department of Human Services - Health Services. All backflow prevention assemblies required under this section shall be of a type and model approved by the DHS.

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 Drain.

1.13 **FIRE SYSTEMS.**

An approved double check backflow prevention 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 backflow prevention assembly must be installed, if any solution other than the 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 high hazard systems;
- (c) Wherever a Specialist deems necessary; and
- (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 Drain 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 Oregon Specialty Plumbing Code, or as amended, and, if applicable, in accordance with the City of Drain's Ordinance. If there is a conflict between this Ordinance and the Plumbing Code, the more stringent supercedes.

1.16 RIGHT-OF-WAY ENCROACHMENT.

- (1) No person shall install or maintain a backflow prevention assembly upon or within any City of Drain right-of-way except as provided in this Section.
- (2) The City of Drain reserves the right to have an assembly installed in the right-of-way.
- (3) A backflow prevention assembly required by the City of Drain may be installed upon or within any City of Drain right-of-way only if the owner proves to the City of Drain that there is no other feasible location for installing the assembly, and installing it in the right-of-way will not interfere with traffic or utilities. The City of Drain retains the right to

approve the location, height, depth, enclosure, and other requisites of the assembly prior to its installation.

- (4) All permits required by the City of Drain's Ordinance to perform work in the right-of-way shall be obtained.
- (5) A property owner shall, at the request of the City of Drain and at the owner's expense, relocate a backflow prevention assembly which encroaches upon any City of Drain right-of-way, when such relocation is necessary for street or utility construction or repairs for purposes of public safety.

1.17 ACCESS TO PREMISES.

Authorized personnel of the City of Drain, 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. 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 Drain shall be tested immediately upon installation, and at least annually thereafter by a DHS 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.

It is the responsibility of the persons who own the assemblies to have the assemblies tested by a certified backflow assembly tester.

If a backflow assembly has been installed prior to the date of this ordinance and it is determined by the Specialist that the assembly is not required to meet the conditions of this enforcement document, testing of the assembly will not be required. If the plumbing conditions ever change and the assembly is required to meet the conditions stipulated in this enforcement document, it will be the responsibility of the property owner to test and maintain the assembly as stipulated by this enforcement document.

1.19 <u>MAINTENANCE OF ASSEMBLIES.</u>

Backflow prevention assemblies shall be maintained in accordance with the requirements set out in the OAR, or as amended, and this Ordinance. The assembly owner is responsible for protecting their assembly from freezing and vandalism.

1.20 RESPONSIBILITIES OF BACKFLOW PREVENTION ASSEMBLY TESTERS.

- (1) All backflow assembly testers operating within the City of Drain Water System service area shall be certified in accordance with all applicable regulations of the DHS.
- (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"); and have completed confined space entry training to enter any confined space within the City of Drain's Water System.
- (3) It is the responsibility of backflow assembly testers to submit records of all backflow assembly test repairs to the City of Drain 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's water system, including, but not limited to, allowing contamination, pollution, any other solution or used water to enter the City's water system, shall be liable to the City for any expense, loss or damage caused by such violation. The City of Drain shall collect from the violator for the cost incurred by the City 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 fees resulting from the enforcement of this Ordinance are the sole responsibility of the property owner.

1.23 <u>TERMINATION OF SERVICE</u>.

Failure on the part of any owner, occupant or person in control of the premises to install a required assembly, have it tested annually 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.

1.24 <u>FALSIFYING INFORMATION.</u>

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 (in addition to civil and/or criminal penalties provided by state law) be subject to the general penalty clause of the City of Drain's Written Program Plan.

1.25 <u>CONSTITUTIONALITY AND SAVING CLAUSE.</u>

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 Drain 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.

1.26 EMERGENCY CLAUSE.

This Ordinance is a compilation of previous ordinances and new and/or revised rules complying with the Oregon Administrative Rules in regards to potential cross connections, therefore, declaring an emergency. This ordinance shall be in full force and effect upon its adoption by Council.

PASSED BY CITY COUNCIL OF THE CITY OF DRAIN, DOUGLAS COUNTY, OREGON, THIS 10^{TH} DAY OF AUGUST, 2009.

Suzanne Anderson, Mayor

ATTEST:

Carl A. Patenode, City Administrator