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Cross Connection

EAGLE CREST MASTER ASSOCIATION

CROSS CONNECTION CONTROL POLICY





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Pursuant to Chapter 333, Division 61, of the Oregon Administrative Rules, it is the responsibility of Eagle Crest Master Association (ECMA) to protect the public water system from pollution and contamination by instituting and enforcing a cross connection control policy. Therefore, the following Policy is hereby adopted:

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1:01 PURPOSE:

The purpose of this Policy is to protect ECMA’s water supply and distribution system from contamination or pollution due to any existing or potential cross connections and to comply with the Oregon Administrative Rule (OAR) Chapter 333, Division 061, Sections 0070 to 0074, as they may be amended from time to time.

1:02 DEFINITIONS:

For the purposes of this Policy, the following definitions apply unless the context clearly indicates or requires a different meaning. If a word or term used in this Policy is not contained in the following list, its definition, or other technical terms used have the meanings or definitions listed in OAR 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.

- (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 DHS.
- (2) "AUXILIARY SUPPLY" means any water source or system other than the ECMA 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 ECMA.
- (4) "CERTIFIED BACKFLOW ASSEMBLY TESTER" means a person who has successfully completed and maintains all requirements as established by the DHS to be a tester in the state of Oregon.
- (5) "CERTIFIED CROSS CONNECTION CONTROL SPECIALIST" means a person who has successfully completed and maintains all requirements as established by the DHS to be a Specialist in the state of Oregon.
- (6) "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.



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- (7) “DEGREE OF HAZARD” means the NON-HEALTH HAZARD or HEALTH HAZARD or HIGH HAZARD classification that is assigned to all actual or potential cross connections.
- (8) “DHS” means the Oregon Department of Human Services - Public Health Division.
- (9) “DOUBLE CHECK VALVE BACKFLOW PREVENTION ASSEMBLY”, “DOUBLE CHECK ASSEMBLY”, “DOUBLE CHECK” or “DCVA” means an approved assembly consisting of two (2) independently operating check valves which are spring-loaded or weighted, which 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.
- (10) “DOUBLE CHECK DETECTOR ASSEMBLY” or “DCDA” means an approved 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 must also be provided with a factory bypass arrangement with a meter and a minimum of an approved double check assembly.
- (11) “ECMA” means the Eagle Crest Master Association.
- (12) “ECMA WATER SYSTEM” refers to and means the water system owned by the ECMA, which includes sources, treatment mechanisms or processes, pumping stations, reservoirs, supply trunk or feeder lines, service lines, meters and all other appurtenances, device lines and all parts of the distribution system, and items necessary to the operation of the system and to supply water service to individual property or premises, including the ECMA’s potable water that supplies the system.
- (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) “MANAGER” means Oregon Water Utilities - Cline Butte, Inc. and its employees, agents or designees.
- (15) “MOBILE UNITS” means units that are temporary in nature, connecting to the water system through a legally-permitted hydrant, hose bib, or other appurtenance of a permanent nature that is part of the ECMA Water System or a permanent water service to a premises. Examples 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 for homeowner’s use, rock quarry or asphalt/concrete batch plants or any other mobile equipment or vessel that poses a threat of backflow into the ECMA Water System. Uses that are excluded from this definition



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are recreational vehicles at assigned sites or parked in accordance with other ECMA policies pertaining to recreational vehicles and homeowner devices that are used by the property owner in accordance with other provisions of this ECMA policy or other ECMA policies pertaining to the providing of water service to a premises.

- (16) "NON-HEALTH HAZARD" means 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) "OAR" means Oregon Administrative Rule.
- (18) "PERSON(S)" means a natural person (individual), corporation, company, city, partnership, firm, Limited Liability Company, Joint Venture Company or city, and other such entity.
- (19) "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.
- (20) "POTABLE WATER SUPPLY" means any system of water supply intended or used for human consumption or other domestic use.
- (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 or within the property.
- (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 or meter stop.
- (23) "REDUCED PRESSURE DETECTOR ASSEMBLY" or "RPDA" means 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.
- (24) "REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY" or "REDUCED PRESSURE PRINCIPLE ASSEMBLY" or "RP ASSEMBLY" means an approved 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 must include properly located test cocks and two tightly closing shut-off valves.



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- (25) "RESIDENT" means a person or persons living within the area(s) served by the ECMA 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 DHS-certified cross connection Specialist, either employed with the Manager or contracted by the Manager.
- (28) "THERMAL EXPANSION" means the pressure created by the expansion of heated water.

1:03 APPLICATION AND RESPONSIBILITIES:

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

1:04 CROSS CONNECTIONS REGULATED:

- (1) No cross connections may be created, installed, used or maintained within the area(s) served by the ECMA Water System except in accordance with this Policy.
- (2) The Specialist will 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 or within the premises.
- (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 set forth in the table "Premises Requiring Isolation – Health Hazard", in OAR 333-061-0070, must install an approved Reduced Pressure Principle Backflow Assembly at the service connection in accordance with this Policy.
- (5) It is the responsibility of the property owner/occupant to purchase, install, test, repair and maintain all backflow prevention assemblies.
- (6) If there is a change in ownership of any property or properties within the ECMA service area, it is the responsibility of the new owner to confirm that all backflow prevention assemblies are in compliance with this Policy.



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- (7) 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 ECMA Water System without proper protections to prevent any potential backflow.
- (8) The use of any type of radiator flush kits attached to the premises plumbing is not allowed within the ECMA Water System without proper protections to prevent any potential backflow.

1:05 BACKFLOW PREVENTION ASSEMBLY REQUIREMENTS:

A Specialist employed by or under contract with the Manager will determine the type(s) of backflow prevention assemblies to be installed within the ECMA Water System. All assemblies must be installed at the service connection unless it is determined by the Specialist and approved by the Manager that an assembly should be installed at the point of use. An approved assembly will 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 dangerous material or substance that is handled in way that allows entry of the material or substance into a potable water system, the potable water system must be protected by 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 a premises, or materials stored at a premises, could contaminate or pollute the potable water supply.
- (3) When one or more Cross Connections are identified or present on a premises.
- (4) When internal Cross Connections are present and 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 be sure that Cross Connections do not exist on the premises.
- (8) When hazardous materials are being used such that, if backflow should occur, a health hazard could result.



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- (9) When an appropriate Cross Connection survey report form has not been filed with the Manager.
- (10) Any and all used water return systems.
- (11) If a point-of-use assembly has not been tested, maintained or repaired as required by this Policy, the installation of a reduced pressure principle assembly will be required at the service connection.
- (12) Where there is piping or equipment for conveying liquids other than potable ECMA 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 purposes of this Policy.
- (14) Wherever reclaimed water or ditch water is used on a premises.
- (15) When a premises with an auxiliary water supply is interconnected to the ECMA Water System or supply system.

1:06 NEW CONSTRUCTION:

- (1) Anyone planning new construction must submit their plans to the Manager for review and determination of whether an assembly must be installed before any construction work is started. The type of the assembly, if required, 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 must 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 is required at all service connections where an actual or potential Cross Connection exists, and wherever else the Manager deems retrofitting is necessary to comply with the OAR and this Policy.

1:08 IRRIGATION SYSTEMS:

All irrigation systems must be protected in accordance with the adopted Oregon Plumbing Specialty Code regulations. In the event any system is equipped with an injector or chemical feed system, a reduced pressure principle assembly will be required.



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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 current adopted Oregon Plumbing Specialty Code.

1:10 MOBILE UNITS:

Any Mobile Unit or mobile apparatus that use water from any premises within the ECMA Water System must have prior written permission from the Manager and must be inspected to ensure that an approved air gap or reduced pressure principle assembly is installed on the unit.

1:11 INSTALLATION REQUIREMENTS:

All backflow prevention assembly installations must follow the requirements set by the Manager and current OAR Chapter 333, Division 061.

Any premises isolation assembly allowed to be installed at an alternate location requires the Manager's prior written authorization and the Manager must have access to the assembly during regular working hours. No connections can be made between the meter and the backflow assembly. Alternate locations must be approved in writing by the Manager prior to installation.

The type of backflow prevention assembly required must be commensurate with the degree of hazard that exists and must, at all times, meet DHS standards.

All backflow prevention assemblies required under this section must be a DHS approved type and model and must be installed in a DHS approved orientation.

Installation plans must be submitted to the Manager for approval prior to installation. The Manager must be notified when the installation is complete. All assemblies must be tested immediately after installation.

Any variances from the installation requirements must be requested in writing by the owner and must have been approved in writing by the Manager.

1:12 PRESSURE LOSS:

Neither the ECMA nor the Manager will have any responsibility or obligations for any decrease in water pressure caused by the installation of a backflow prevention assembly.



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1:13 FIRE SYSTEMS:

An approved double check detector assembly is the minimum protection allowed on all new fire sprinkler systems using piping material that is not approved for potable water use, and/or does not provide for periodic flow-through, and/or has a pumper connection. 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 it to be necessary; and
- (d) Wherever required by the OAR.

Where 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 of the meter or hydrant. The type of assembly will be commensurate with the degree of hazard and will be determined on a case-by-case basis by a Specialist.

1:15 PLUMBING CODE:

As a condition of water service, customers must install, maintain, and operate their piping and plumbing systems in accordance with the Oregon Specialty Plumbing Code in effect at any given time. If there is a conflict between this Policy and the Plumbing Code, the more stringent provision controls.

1:16 RIGHT-OF-WAY ENCROACHMENT:

- (1) No person may install or maintain a backflow prevention assembly upon or within any County, State or ECMA right-of-way except as provided in this Section.
- (2) A backflow prevention assembly required by the Manager may be installed upon or within any County, State or ECMA right-of-way only if the owner proves to the Manager and ECMA 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 ECMA retains the right to approve the location, height, depth, enclosure, and other requisites of the assembly prior to its installation.
- (3) All permits required by the Deschutes County Building Code to perform work in the right-of-way must be obtained by the property owner or their lessee and/or tenant prior to work being performed in the right-of-way.



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A property owner must, at the request of the Manager and at the owner's expense, relocate a backflow prevention assembly which encroaches upon any 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 Manager, with proper identification and sufficient notice have access during reasonable hours, 8:00 am to 5:00 pm, Monday through Friday, to all parts of a premises 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 must be installed at the service connection to that premises.

1:18 ANNUAL TESTING AND REPAIRS:

All backflow prevention assemblies protecting the ECMA Water System must be tested immediately upon installation, and at least annually thereafter by a DHS-certified backflow assembly tester. All such assemblies found not functioning properly must be promptly repaired or replaced at the expense of the owner, occupant or person in control of the premises. If an assembly is moved, repaired or replaced, it must be retested immediately.

All repairs on backflow prevention assemblies within the ECMA Water System must be performed in accordance with all applicable State and County regulations.

1:19 MAINTENANCE OF ASSEMBLIES:

Backflow prevention assemblies must be maintained, tested and repaired in accordance with the requirements of this Policy, all applicable OARs and all applicable State and County regulations. The assembly owner, occupant or person in control of the premises is responsible for protecting their assembly from freezing, vandalism and other damage.

1:20 RESPONSIBILITIES OF BACKFLOW PREVENTION ASSEMBLY TESTERS:

- (1) All backflow assembly testers operating within the ECMA Water System must be certified in accordance with all applicable regulations, including DHS regulations.
- (2) All certified backflow assembly testers must comply with all requirements of the United States Occupational Safety and Health Administration ("OSHA") and Oregon Occupational Safety and Health Administration ("OR-OSHA").



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- (3) Backflow assembly testers are responsible for submitting records of all backflow assembly tests and repairs to the Manager within 5 days of completing the test. Test reports must include: the date of installation, test or repair; make, model, size, type, and serial number of the assembly; test values; determination of working condition; tester name, address, phone number, and certification number; gauge serial number; and date of last gauge calibration or gauge accuracy verification.

1:21 COSTS OF COMPLIANCE:

The property owner, occupant or other person in control of the premises is responsible for all costs associated with complying with this Policy (including the purchase, installation, surveying, testing, replacement, maintenance, and repairs of the backflow prevention assembly, including parts) as well as all costs associated with the enforcement of this Policy.

1:22 RECOVERY OF COSTS:

Any water customer violating any provision of this Policy who causes damage to or impairs the ECMA Water System (including, but not limited to, allowing contamination, pollution, hazardous substance, or used water to enter the ECMA Water System) will be liable to the ECMA for any expense, loss and damage caused by such violation or for any liability incurred by ECMA arising from such violation. It will be a violation of this Policy resulting in termination of service if an owner fails to timely pay the assessed (i) costs incurred by ECMA in connection with such damage or impairment to the ECMA Water System, including costs of legal defense, fines and fees levied by any governmental authority, and/or (ii) costs incurred by ECMA for testing, repair and remediation that Manager performs in the case of an owner's failure to timely perform its obligations hereunder.

All costs associated with any disconnect or reconnect fees resulting from the enforcement of this Policy are the sole responsibility of the property owner.

1:23 ENFORCEMENT:

If an owner, occupant or person in control of a premises fails to comply with this Policy (including but not limited to installation and annual testing of an assembly, repairing/replacing a failing assembly promptly, discontinuing the use of all Cross Connections, and physically separating Cross Connections in accordance with this Policy), following notice and the opportunity to be heard by ECMA, service may be terminated in accordance with the current collection and termination policy of ECMA. If following notice of the need to install an assembly, or of the need for testing, repair or replacement of an existing assembly that an owner fails to timely remedy, the Manager may but is not required to, at the property owner's expense cause the current assembly protecting the distribution system to be tested, cause a repair to be performed on the current assembly, or install the require assembly at the meter or meter stop on the owner's property. Testing, maintenance and repair of the assembly in accordance with ECMA policies is the responsibility of the property owner. All costs associated with enforcement of this Policy



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including, but not limited to, installation, testing and repair performed by the Manager in the case of owner's failure to do so, and disconnect or reconnection fees, are the responsibility of the property owner. If the Manager elects not to remedy the property owner's failure to comply with this policy, service may be disconnected and will remain disconnected until compliance with this policy is achieved by 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 Policy, or who falsifies, tampers with, or knowingly renders inaccurate any backflow assembly, device or method required under this Policy will be subject to civil and/or criminal penalties provided by state law.

1:25 SAVINGS CLAUSE:

Should any provision, section, sentence, clause or phrase of this Policy, or the application of same to any person or set of circumstances, be for any reason held to be void, invalid, or unenforceable, the validity of the remaining portions of this Policy, or its application to other persons or circumstances, will not be affected. In adopting and approving this Policy, it is the intent of the ECMA Board of Directors that no portion hereof or provision or regulation contained herein will become inoperative or fail by reason of any unconstitutionality or invalidity of any other portion, provision, or regulation.

1:26 EFFECTIVE DATE:

Policy adopted by Eagle Crest Master Association Board of Directors by resolution at properly noticed and held board meeting on July 26, 2018.

This policy is effective as of July 26, 2018.