# 41-00133 DAMASCUS WATER DISTRICT REGULATION NO. 041095



An ordinance providing for regulating and prohibiting cross-connections to the water supply for the Damascus Water District is hereby established by the Board of Directors of the Damascus Water District. Declaring cross-connections to be a hazard and providing for the abatement thereof; providing definitions; providing for control and use of backflow devices; providing rules and regulations pertaining to cross-connection control.

## 1. PURPOSE:

The purpose of this regulation is to protect the public health of water consumers by the control of actual and/or potential cross-connections and to comply with requirements set forth in Oregon Administrative Rules, Chapter 333 Rule 61-070, The U.S. EPA authorized by the "Safe Drinking Act" PL 93-523, and the <u>AWWA Accepted Procedure and Practice in a Cross Connection Control Manual</u>, 5th Edition, or any revision thereof.

### 2. DEFINITIONS:

- A. "Auxiliary water supply" Any water supply on or available to the premises other than the water purveyor's approved public water supply such as, but not limited to a private well, pond, or river.
- B. "Backflow" The undesirable reversal of water or mixtures of water and other liquids, gases, or other substances into the distribution pipes of the potable supply of water from any source or sources.
- C. "Backflow Prevention Device" A device that has been investigated and approved by the regulatory agency having jurisdiction. All devices will be on the state approved list.
- D. "Certified Backflow Prevention Assembly Testers: A person who is certified by the State of Oregon to test backflow devices.
- E. "Containment" A method of backflow prevention which requires the installation of a backflow prevention assembly at the water service entrance.
- F. "Cross-Connection" Any actual or potential physical connection between a potable water line and any pipe or vessel containing a non-potable fluid so that it is possible to introduce the non-potable fluid into the potable fluid by backflow.
- G. "Contamination" The entry into or presence in a public water system of any substance that may be hazardous to the health or changes the quality of the water.
- H. "Customer" The owner, operator, or occupant of a building or property which has a water service from a public water system.

- I. "Degree of Hazard" The rating of a cross-connection or water service which indicates if it has the potential to cause contamination or pollution.
- J. "Double Check Valve Backflow Prevention Assembly (DCVA)" A backflow prevention device consisting of two independently acting internally load check valves, four properly located test cocks, and two isolation valves.
- K. "High Hazard Cross-connection" A cross-connection which may cause an impairment of the quality of the potable water by creating an actual hazard to the public through poisoning or through the spread of disease by sewage, industrial fluids, or waste.
- L. "Isolation" A method of backflow prevention in which a backflow prevention assembly is located at the cross-connection rather than at the water service entrance.
- M. "Low Hazard Cross-connection" A cross-connection which may cause an impairment of the quality of potable water to a degree which does not create a hazard to the public health, but which does adversely and unreasonably affect the aesthetic qualities of such potable waters for domestic use.
- N. "Potable water" Any system of water supply intended or used for human consumption or other domestic use.
- O. "Reduced Pressure Principle Backflow Prevention Assembly (RPBA)" A backflow prevention device consisting of two independently acting internally loaded check valves, a different pressure relied valve, four properly located test cocks, and two isolation valves.
- P. "Thermal Expansion" Volumetric increase of water due to heating, resulting in increased pressure in a closed system.
- Q. "Water Service" Depending on context. Water service is the physical connection between a public water system and a customer's building, property, or private water system, or the act of providing potable water to a customer.

# 3. ADMINISTRATIVE AUTHORITY:

A. The Administrative Authority is the Damascus Water District's Board of Directors acting through the Manager and/or Cross Connection Control Inspector. The Inspector will be appointed by the Manager and be responsible to him.

- B. The Cross Connection Control Inspector shall have the right to enter, with consent of the customer, any property to inspect for possible cross-connections. Refusal of inspection will result in termination of water service until inspection is permitted, or installation of an appropriate backflow prevention device at the water service entry at the customer's expense.
- C. The Cross Connection Control Inspector shall maintain records of cross-connection hazard surveys, and the installation, testing, and repair of all backflow prevention assemblies installed.

#### 4. NEW WATER SERVICES:

- A. Prior to installation of the water service, plans shall be submitted to the Cross Connection Control Inspector (CCCI) for review on all new water services in order to determine the degree of hazard.
- B. The CCCI shall determine the need for a type of backflow prevention assembly required for containment based on the degree of hazard and where it will be located.
- C. If needed, the CCCI shall require the installation of the appropriate backflow prevention assembly for the containment before the initiation of water service.

#### 5. EXISTING WATER SERVICES:

- A. Upgrades of existing water services shall be treated as new water services for the purpose of this ordinance.
- B. Within six (6) months after adoption of this ordinance the Administrative Authority shall publish and make available to each customer a copy of the standards used to determine the degree of hazard.
- C. Within three (3) months after publication of the standards, the Administrative Authority shall, in writing, notify customers whose premises are classified as single family residential of the provisions of this ordinance and shall require compliance therewith.
- D. Lawn irrigation is determined to be a low hazard and will require a double check backflow assembly. Atmospheric vacuum breakers will not be allowed on existing services. Customers will be given six (6) months from time of written notification to make upgrades or new installations. For exception see 7C.
- E. For customers not classified as single family residential, the Administrative Authority shall determine the type of backflow prevention assembly required for containment. The degree of hazard will be determined by information gathered through onpremise investigations or surveys.

- F. Within the time frame specified in writing by the Administrative Authority, the customer shall install a backflow prevention assembly as specified and required for containment.
- G. For existing water services, the administrative authority may inspect the premises to determine the degree of hazard. When high hazard cross-connections are found, the Administrative Authority shall, at its sole discretion: 1) Develop a schedule of compliance the customer shall follow, or 2) Terminate the water service until a backflow prevention assembly for containment required by the Administrative Authority has been properly installed.
- H. Failure of the Administrative Authority to notify a customer that they are believed to have a high hazard cross-connection, and that they shall install backflow prevention Assemblies for containment in no way relieves a customer of the responsibility to comply with all requirements of this section.

# 6. CUSTOMER:

- A. The customer shall be responsible for ensuring that no cross-connections exist without approved backflow protection within his or her premise starting at the point of service from the public potable water system.
- B. The customer shall, at his or her own expense, cause installation, operation, testing and maintenance of the backflow prevention assemblies required by the Administrative Authority.
- C. The customer shall ensure the Administrative Authority is provided with the copies of records of the installation and of all tests and repairs made to the backflow prevention assembly on the approved form with fifteen (15) days after testing and/or repairs are completed.
- D. In the event of a backflow incident, the customer shall immediately notify Damascus Water District of the incident and take steps to confine the contamination or pollution.
- 7. REQUIRED BACKFLOW PREVENTION ASSEMBLIES FOR CONTAINMENT WATER SERVICES:
- A. An air gap or an approved reduced pressure principle backflow prevention assembly is required for water services having one or more cross-connections which the Administrative Authority classifies as high hazard..
- B. An approved double check valve assembly is required for water services having no high hazard cross-connections but having one or more cross-connections which the Administrative Authority has classified as low hazard.

C. Pressure vacuum breaker assemblies installed on existing irrigation systems will be allowed. They will not be allowed for new installations or replacements of a non-functioning pressure vacuum breaker.

# 8. REQUIRED BACKFLOW PREVENTION ASSEMBLIES FOR CONTAINMENT - FIRE PROTECTION SYSTEMS:

- A. A reduced pressure principle backflow prevention assembly shall be installed on all new and existing fire protection systems which the Administrative Authority determines to have any of the following:
  - 1. Direct connections from public water mains with an auxiliary water supply on or available to the premises for pumper connection.
  - 2. Interconnections with auxiliary supplies such as reservoirs, rivers, ponds, wells, mills, or other industrial water systems.
  - 3. Use of anti-freezes or other additives in the fire protection system.
  - 4. Combined industrial or domestic with high hazard and fire protection systems supplied from the public water mains only, with or without gravity storage or pump suction tanks.
  - 5. Pipe is made of material not recommended for potable water. i.e., black iron pipe.
  - 6. Any other facilities, connection, or condition which may cause contamination.
- B. A double check valve assembly will be required for all other fire protection systems. The double check valve shall be required on all new systems at the time of installation and on existing systems at the time of upgrade.

# 9 APPROVED BACKFLOW PREVENTION ASSEMBLY TESTERS:

- A. Approved testers must have current Oregon Certification Credentials and be registered with the State of Oregon.
- B. Testers must include his or her Oregon Registration Number on all correspondence and forms required by or associated with this regulation.

# 10. REGISTERED BACKFLOW PREVENTION ASSEMBLY TESTER NON-COMPLIANCE:

- A. Registered testers may be barred from testing backflow devices in this district for up to two years for the following:
  - 1. Shows they are incompetent in testing devices.
  - 2. Falsifying a test report.
  - 3. Has allowed any other person to use their certification number.
  - 4. Failure to meet registration requirements.

### 11. INSTALLATION OF BACKFLOW PREVENTION ASSEMBLIES.

A. Backflow prevention assemblies shall be installed in accordance with Oregon Administrative Rules Chapter 333 Rule 61-099.

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#### 12. TESTING OF BACKFLOW PREVENTION ASSEMBLIES.

A. Testing of backflow prevention assemblies shall be performed by a registered tester. The costs of tests required in the following paragraphs (B-E) shall be borne by the customer.

- B. Backflow prevention assemblies shall be tested upon installation and tested and inspected at least annually.
- C. Backflow prevention assemblies which are in place, but have been out of operation for more than three months, shall be tested before being put back into operation. Backflow prevention assemblies used in seasonal applications (i.e. irrigation) shall be tested before being put into operation each season.
- D. Any backflow prevention assembly which fails a periodic test shall be repaired or replaced and immediately be re-tested.
- E. The Administrative Authority may require backflow prevention assemblies to be tested at any time in addition to the annual testing requirement.
- F. The registered backflow prevention assemblies tester shall report the <u>successful</u> test of a backflow prevention assembly to the customer and to the Administrative Authority, on the approved American Water Works Association (AWWA) form, within fifteen (15) days of the test. An <u>unsuccessful test</u> in which the assembly cannot be repaired or replaced immediately the tester shall notify the Administrative Authority within one (1) working day.

# 13. REPAIR OF BACKFLOW PREVENTION ASSEMBLIES;

- A. All repairs to backflow prevention assemblies shall be performed by registered backflow prevention assembly testers.
- B. The tester shall not change the design, material, or operational characteristics of a backflow prevention assembly during repair or maintenance, and shall use only original manufacturer replacement parts.
- C. The tester shall report the repair of a backflow prevention assembly to the customer and to the Administrative Authority on the AWWA form with fifteen (15) days of the repair. The report shall include the list of material or replacement parts used.

### 14. CUSTOMER NON-COMPLIANCE:

- A. The water service may be discontinued in the case of non-compliance with this regulation. Non-compliance includes, but not limited to, the following:
  - 1. Refusal to allow the Administrative Authority access to the property to inspect for cross-connections.
  - 2. Removal or bypassing of a backflow prevention assembly which has been required by the Administrative Authority.
  - 3. Providing inadequate backflow prevention when cross-connections exist.
  - 4. Failure to install a backflow prevention assembly which has been required by the Administrative Authority.
  - 5. Failure to test and/or properly repair a backflow prevention assembly as required by the Administrative Authority.

Secretary Damascus Water District Board of Directors

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  - Emerse or by passing of a backflow prevention assembly which has been recurred by the Administrative Authority
- Providing trade juate backflow prevention when cross-cornections or:
  - Failard to install a backflow prevention assembly which has been recovered by the Administrative Authority.
- Failure to test and/or property repair a backflow prevention assembly as received by the Administrative Authority.

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