Cross-Connection Control & Backflow Protection Policy

Public Water System Name: City of Boca Raton, Florida
PWSID: 4500130
Reuse System Name: Project IRIS (In-City Reclamation Irrigation System)
Reuse Activities: Irrigation for public access areas

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I. Purpose

The purpose of the Cross-connection Control and Backflow Protection Policy (Policy) is to establish and enforce the City of Boca Raton Utility Services Department's (Department) policy for backflow protection. This Policy shall specify the required backflow protection at or for water service connections as well as the ownership, installation, inspection/testing, and maintenance requirements of the necessary devices. The prevention of backflow and the control of cross-connections are in the interest of protecting the public health and the Department's public water system. This Policy is adopted by Ordinance #53-16, enacted on September 9, 2015 in reference to City Code of Ordinances Chapter 17, "Utilities," Article VI, "Cross-Connection Control and Backflow Prevention".

II. Administration

The Department shall be responsible for the protection of the public health via the public water distribution system from contamination or pollution due to the backflow or backsiphonage of contaminants or pollutants through a water service connection. The Department has the authority to enforce this Policy in order to protect the public water distribution system. This Policy shall be enforced in conjunction with other relevant sections contained in the City Code of Ordinances.

III. Regulatory Reference

This Policy shall be liberally construed so as to effectively carry out the purposes hereof in the interest of the public health, safety and general welfare. This Policy is not intended nor shall it be construed to supersede or conflict with any statutory provisions or regulations of the State of Florida, but shall be construed as implementing and assisting the enforcement thereof.

In addition to the requirements contained in this Policy, the requirements and standards contained in Section 62-555 of the Florida Administrative Code (F.A.C.) are hereby incorporated by reference. At a minimum, the contents of this Policy must meet the requirements contained in the F.A.C. At the discretion of the City, the Department may adopt stricter rules than those required by the F.A.C.

Beginning with a report for the 2016 calendar year, the Department shall prepare and submit an annual cross-connection control program report using Form 62-555.900(13), F.A.C.

IV. Definitions and Abbreviations

The following terms and phrases, when used in this manual, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

a. “AWWA” shall mean the American Water Works Association which is an international non-profit, scientific and educational association founded to improve water quality and supply.

b. "Approved" shall mean accepted by the Department Director as meeting an applicable specification stated or cited in this manual or as suited for the proposed use.

c. "Auxiliary water supply" shall mean a pressurized system of piping and appurtenances using auxiliary water, which is water other than the potable water being supplied by the CWS and which includes water from any natural source such as a well, pond, lake, spring, stream, river, etc., includes reclaimed water, and includes other used water or industrial fluids described in AWWA Manual M14 as incorporated in paragraph 62-555.360(1)(a), F.A.C., and subsection 62-555.360(2), F.A.C.; however, “auxiliary water system” specifically excludes any water recirculation or treatment system for a swimming pool, hot tub, or spa. (Note that reclaimed water is a specific type of auxiliary water and a reclaimed water system is a specific type of auxiliary water system.).

d. "Backflow" shall mean the undesirable reversal of flow of a liquid, gas, or other substance in a potable water distribution piping system as a result of a cross-connection.

e. “Backflow preventer" shall mean an assembly, device, or method that prohibits the backflow of water into potable water supply systems.

f. "Backsiphonage" shall mean a type of backflow where the upstream pressure to a piping system is reduced to a sub atmospheric pressure.

g. “Certified Backflow Prevention Assembly Tester” shall mean a person who has successfully completed and maintains all required licensure to test backflow preventers. Licensure must be obtained through a course endorsed by the FSAWWA.

h. “Certified Backflow Prevention Repair Technician” shall mean a person who has successfully completed and maintains all required licensure to repair backflow

preventers. Licensure must be obtained through a course endorsed by the FSAWWA.

i. "Contamination" shall mean an impairment of a potable water supply by the introduction or admission of any foreign substance that degrades the quality and creates a health hazard.

j. “City” shall mean the City of Boca Raton.

k. "Cross-connection" shall mean any physical arrangement whereby a public water supply is connected, directly or indirectly, with any other water supply system, sewer, drain, conduit, pool, storage reservoir, plumbing fixture, or other device which contains or may contain contaminated water, sewage or other waste, or liquid of unknown or unsafe quality which may be capable of imparting contamination to the public water supply as the result of backflow. By-pass arrangements, jumper connections, removable sections, swivel or changeable devices, and other temporary or permanent devices through which or because of which backflow could occur are considered to be cross-connections.

l. “Customer” shall mean the person(s) responsible for payment of the potable water or reclaimed water service and/or maintenance of the corresponding plumbing system; the corresponding plumbing system is at the point of connection beyond the facilities owned by the City.

m. “CWS” shall mean Community Water System. For the purpose of this Policy, CWS shall mean the Department.

n. “Department” shall mean the City of Boca Raton Utility Services Department.

o. "Department Director" shall mean the individual or designee responsible for the activities of the Utility Services Department of the City of Boca Raton, Florida.

p. “F.A.C.” shall mean the Florida Administrative Code.

q. “FSAWWA” shall mean the Florida Section of the American Water Works Association.

r. “Health hazard (high hazard)” shall mean a cross-connection or potential cross-connection involving any substance that could, if introduced into the potable

water supply, cause death or illness, spread disease, or has a high probability of causing such effects.

s. “Non-health hazard (low hazard)” shall mean a cross-connection or potential cross-connection involving any substance that generally would not be a health hazard but would constitute a nuisance or be aesthetically objectionable if introduced into the potable water supply.

t. “Policy” shall mean the City of Boca Raton Cross-connection Control and Backflow Protection Policy.

u. “Potable Water” shall mean water that is satisfactory for human consumption, dermal contact, culinary purposes, or dishwashing.

v. “Reclaimed water” shall mean, except as specifically provided in Chapter 62-610, F.A.C., water that has received at least secondary treatment and basic disinfection and is reused after flowing out of a domestic wastewater treatment facility.

w. “State” shall mean the State of Florida.

x. "Water service connection" shall mean the point at which the City’s distribution system is connected to the customer’s plumbing system. For metered services, this shall mean at the point on the downstream side of the meter. For unmetered services, this shall mean at the point of the customers property line. "Water service connection" shall also include water service connection from a fire hydrant and all other temporary or emergency water service connections from the public potable water system. There shall be no unprotected takeoffs between a water service connection and a backflow preventer. For the purposes of regulatory reporting:

    i. “Residential water service connection” shall mean any service connection, including any dedicated irrigation or fire service connection, that is two inches or less in diameter and that supplies potable water to a single building, or premises, containing only dwelling units.
    ii. “Non-residential water service connection” means any other service connection that does not meet the definition of a residential service connection.

V. Prohibition of Cross-connections and Violations

a. **General**

i. Cross-connections, as defined in Rule 62-550.200, F.A.C., are prohibited unless appropriate backflow protection is provided to prevent backflow through the cross-connection into the public water system. This does not prohibit a public water system from being interconnected to another public water system of the same type without backflow protection (i.e., a CWS may be interconnected to another CWS without backflow protection, a non-transient non-community water system [NTNCWS] may be interconnected to another NTNCWS without backflow protection, and a transient non-community water system [TWS] may be interconnected to another TWS without backflow protection).

ii. The Department maintains an ongoing backflow protection and cross-connection control program to protect its public water system from the hazards originating on the premises of its Customers and from temporary connections that may impair or alter the water in the public water system. The return of any water to the Department's public water system after the water has been used for any purpose on the Customer's premises or has been within the Customer's piping system is not permitted.

iii. Except for the temporary cross-connections described in 62-555.360(1)(c), F.A.C., cross-connections between the distribution system and a wastewater system or reclaimed water system are prohibited.

b. **Violations**

i. Contamination of the Department's or Customer's water system due to a cross-connection is a violation of this Policy.

ii. Upon discovery, notification, or suspicion of a cross-connection, the Customer shall immediately notify the Department and take actions to confine further spread of contamination and eliminate the cross-connection.

iii. Upon discovery, notification, or suspicion of a cross-connection, the Department shall immediately take actions to confine further spread of contamination.

iv. Upon discovery of a prohibited or inappropriately protected cross-connection, the Department either shall ensure that the cross-connection is eliminated, shall ensure that by installation backflow protection is installed to prevent backflow into the public water system, shall test the affected area for other possible cross-connections, and/or shall discontinue water and/or reclaimed water service. If the discovered cross-connection is on the premises of a Customer of a CWS and if the Customer's premises is in a category described in Table 62-555.360-2, F.A.C., the Department shall ensure that appropriate backflow protection is provided at or for the water

service connection to the customer regardless of whether the cross-connection is eliminated or whether internal backflow protection is installed at the cross-connection to the Customer's plumbing system.

v. Upon discovery of a cross-connection, the Department shall notify the appropriate regulatory agencies within 24-hours.

vi. If the City determines that violation of this Policy or other applicable regulatory or statutory requirement exists, the Department Director shall notify the owner or authorized agent of the owner of such violation.

1. It is a violation of this Policy if a Customer fails to install, test, and maintain a required backflow preventer, or if it is found that a backflow preventer has been removed, bypassed,. Such violation may result in the termination of water service by the Department.

a. If the Department determines that an approved backflow prevention device is not installed, the Department shall give notice in writing to the Customer to install such device at each service connection to the premise. The Customer shall immediately install such approved device at their own expense and have the device tested annually with results submitted to the Department or its authorized agent.

vii. The Department Director shall set a reasonable time for the owner to correct the violation (As determined by degree or hazard, 30 days maximum). On failure of the owner to eliminate the violation by the end of the specified time interval or at the Department's discretion, the Department Director may, if in his or her judgment an imminent health hazard exists, cause the water service to the building or premises to be terminated and/or recommend fines or penalties. The Department shall not restore the water service until the violation is eliminated.

VI. Requirements for Backflow Preventers

a. Minimum Requirements, Certain Categories

i. Minimum requirements for backflow protection at or for the water service connections for certain categories of customers are described in Table 62-555.360-2, which appear at the end of Rule 62-555.360 F.A.C., and in this section except for City requirements that are more stringent and deviate from the F.A.C. as noted by footnote 15 in the table contained in this section.

ii. In the case of premises having internal cross-connections that cannot be permanently corrected and controlled, have intricate plumbing and piping arrangements, or where entry to all portions of the premises is not readily accessible for evaluation and inspection purposes making it impracticable

or impossible to ascertain whether or not dangerous cross-connections exist, the public water system shall be protected against backflow from the premises by installing a backflow preventer in the service line at or as close a practical to the point of water service connection. The type of backflow preventer required shall depend upon the degree of hazard which exists, as follows:

1. In the case of any premises where there is an auxiliary water supply, the public water system shall be protected by an approved air gap separation or an approved reduced pressure principle backflow prevention device.
2. In the case of any premises where there is water or some substance that would be objectionable but not hazardous to health if introduced into the public water system, the public water system shall be protected by an assembly appropriate to the type of hazard.

Table 62-555.360-2: Categories of Customers for Which Each Community Water System (CWS) Shall Ensure Minimum Backflow Protection Is Provided at or for the Service Connection from the CWS to the Customer (Effective 5-5-14)	
Category of Customer	**Minimum Backflow Protection[1] to Be Provided at or for the Service Connection from the CWS to the Customer**
Beverage processing plant, including any brewery	DC if the plant presents a low hazard[2]; or RP if the plant presents a high hazard[2]
Cannery, packing house, rendering plant, or any facility where fruit, vegetable, or animal matter is processed, excluding any premises where there is only restaurant or food service facility	RP
Car wash	RP
Chemical plant or facility using water in the manufacturing, processing, compounding, or treatment of chemicals, including any facility where a chemical that does not meet the requirements in paragraph 62-555.320(3)(a), F.A.C., is used as an additive to the water	RP
Dairy, creamery, ice cream plant, cold-storage plant, or ice manufacturing plant	RP[3]
Dye plant	RP
Film laboratory or processing facility or film manufacturing plant, excluding any small, noncommercial darkroom facility	RP
Hospital; medical research center; sanitarium; autopsy facility; medical, dental, or veterinary clinic where surgery is performed; or plasma center	RP
Laboratory, excluding any laboratory at an elementary, middle, or high school	RP
Laundry (commercial), excluding any self-service laundry or Laundromat	RP
Marine repair facility, marine cargo handling facility, or boat moorage	RP
Metal manufacturing, cleaning, processing, or fabricating facility using water in any of its operations or processes, including any aircraft or automotive manufacturing plant	DC if the facility presents a low hazard[2]; or RP if the facility presents a high hazard[2]
Mortuary	RP
Premises where oil or gas is produced, developed, processed, blended, stored, refined, or transmitted in a pipeline or where oil or gas tanks are repaired or tested, excluding any premises where there is only a fuel dispensing facility	RP

Premises where there is an auxiliary or reclaimed water system[4,5]	A. At or for a residential service connection[6]: DuC[7] B. At or for a non-residential service connection[6]: DC if the auxiliary or reclaimed water is a low hazard[8,9]; or RP if the auxiliary or reclaimed water is a high hazard[8,9]
Premises where there is a cooling tower	RP
Premises where there is an irrigation system that is using potable water and that… I. Is connected directly to the CWS's distribution system via a dedicated irrigation service connection II. Is connected internally to the customer's plumbing system	I. At or for a residential or non-residential dedicated irrigation service connection[6]: PVB if backpressure cannot develop in the downstream piping[10]; or RP if backpressure could develop in the downstream piping[10] II. None[11]
Premises where there is a wet-pipe sprinkler, or wet standpipe, fire protection system that is using potable water and that… I. Is connected directly to the CWS's distribution system via a dedicated fire service connection[12] II. Is connected internally to the customer's plumbing system	I. A. At or for a residential dedicated fire service connection[6]: DuC if the fire protection system contains no chemical additives and is not connected to an auxiliary water system[4]; or RP or RPDA if the fire protection system contains chemical additives or is connected to an auxiliary water system[4,13] I. B. At or for a non-residential dedicated fire service connection[6]: DC or DCDA if the fire protection system contains no chemical additives and is not connected to an auxiliary water system[4]; or RP or RPDA if the fire protection system contains chemical additives or is connected to an auxiliary water system[4,13] II. None[11]

Radioactive material processing or handling facility or nuclear reactor	RP
Paper products plant using a wet process	RP
Plating facility, including any aircraft or automotive manufacturing plant	RP
Restricted-access facility	RP
Steam boiler plant	RP
Tall building—i.e., a building with three or more floors at or above ground level[15]	RP
Wastewater treatment plant or wastewater pumping station	RP
Customer supplied with potable water via a temporary or permanent service connection from a CWS fire hydrant	Varies[14]

1. Means of backflow protection, listed in an increasing level of protection, include the following: a dual check device (DuC); a double check valve assembly (DC) or double check detector assembly (DCDA); a pressure vacuum breaker assembly (PVB); a reduced-pressure principle assembly (RP) or reduced-pressure principle detector assembly (RPDA); and an air gap. A PVB may not be used if backpressure could develop in the downstream piping.
2. The CWS shall determine the degree of hazard. "Low hazard" or "non-health hazard" and "high hazard" or "health hazard" are defined in *AWWA Manual M14* as incorporated in paragraph 62-555.360(1)(a), F.A.C., and subsection 62-555.360(2), F.A.C.
3. A DC may be provided if it was installed before 5-5-14; and if such a DC is replaced on or after 5-5-14, it may be replaced with another DC.
4. For the purpose of this table, "auxiliary water system" means a pressurized system of piping and appurtenances using auxiliary water, which is water other than the potable water being supplied by the CWS and which includes water from any natural source such as a well, pond, lake, spring, stream, river, etc., includes reclaimed water, and includes other used water or industrial fluids described in *AWWA Manual M14* as incorporated in paragraph 62-555.360(1)(a), F.A.C., and subsection 62-555.360(2), F.A.C.; however, "auxiliary water system" specifically excludes any water recirculation or treatment system for a swimming pool, hot tub, or spa. (Note that reclaimed water is a specific type of auxiliary water and a reclaimed water system is a specific type of auxiliary water system.)
5. The Department shall allow an exception to the requirement for backflow protection at or for a residential or non-residential service connection from a CWS to premises where there is an auxiliary or reclaimed water system if all of the following conditions are met:
    - The CWS is distributing water only to land owned by the owner of the CWS.
    - The owner of the CWS is also the owner of the entire auxiliary or reclaimed water system up to the points of auxiliary or reclaimed water use.
    - The CWS conducts at least biennial inspections of the CWS and the entire auxiliary or reclaimed water system to detect and eliminate any cross-connections between the two systems.
6. For the purpose of this table, "residential service connection" means any service connection, including any dedicated irrigation or fire service connection, that is two inches or less in diameter and that supplies water to a building, or premises, containing only dwelling units; and "non-residential service connection" means any other service connection.

7. A DuC may be provided only if there is no known cross-connection between the plumbing system and the auxiliary or reclaimed water system on the customer's premises. Upon discovery of any cross-connection between the plumbing system and any reclaimed water system on the customer's premises, the CWS shall ensure that the cross-connection is eliminated. Upon discovery of any cross-connection between the plumbing system and any auxiliary water system other than a reclaimed water system on the customer's premises, the CWS shall ensure that the cross-connection is eliminated or shall ensure that the backflow protection provided at or for the service connection is equal to that required at or for a non-residential service connection.
8. Reclaimed water regulated under Part III of Chapter 62-610, F.A.C., is a low hazard unless it is stored with surface water in a pond that is part of a stormwater management system, in which case it is a high hazard; well water is a low hazard unless determined otherwise by the CWS; industrial fluids and used water other than reclaimed water are high hazards unless determined otherwise by the CWS; reclaimed water not regulated under Part III of Chapter 62-610, F.A.C., and surface water are high hazards.
9. Upon discovery of any cross-connection between the plumbing system and any reclaimed water system on the customer's premises, the CWS shall ensure that the cross-connection is eliminated.
10. A DC may be provided if both of the following conditions are met:
    - The dedicated irrigation service connection initially was constructed before 5-5-14.
    - No chemicals are fed into the irrigation system.
11. The CWS may rely on the internal backflow protection required under the Florida Building Code or the predecessor State plumbing code. The CWS may, but is not required to, ensure that such internal backflow protection is inspected/tested and maintained the same as backflow protection provided at or for service connections from the CWS.
12. The Department shall allow an exception to the requirement for backflow protection at or for a residential or non-residential dedicated fire service connection from a CWS to a wet-pipe sprinkler, or wet standpipe, fire protection system if both of the following conditions are met:
    - • The fire protection system was installed and last altered before 5-5-14.
    - • The fire protection system contains no chemical additives and is not connected to an auxiliary water system as defined in Footnote 4.
13. Upon discovery of any cross-connection between the fire protection system and any reclaimed water system on the customer's premises, the CWS shall ensure that the cross-connection is eliminated.
14. The CWS shall ensure that backflow protection commensurate with the degree of hazard is provided at or for the service connection from its fire hydrant.
15. City requirements that are more stringent and deviate from the F.A.C

b. **Evaluation of Customers**

i. **General**

A City-wide survey was conducted to evaluate each Customer's premises in order to establish the category of Customer and the backflow protection required at or for the service connection(s) to the Customer.

ii. **New Services Potable Water**

1. New services of potable water resulting from new construction shall be surveyed by the City in order to establish the category of customer and backflow prevention requirements.
2. In addition, new services of potable water in areas where reclaimed water is available shall be tested by the Department to verify the new service is connected to the potable distribution system prior to activation of the potable water service.

iii. **New Services Reclaimed Water**

1. New services of reclaimed water shall be inspected for cross-connections to verify no prohibited cross-connection to the potable distribution system exists prior to activation of the reclaimed water service. No Customer shall create or allow others to create a cross-connection between potable and reclaimed water lines. In addition, the Customer's auxiliary water supplies shall not be interconnected with the Department's public water supply system. Refer to Section IX for inspection information.

iv. **Existing Potable Water Services**

1. Existing water service connections shall be evaluated whenever the Customer connects to the reclaimed water distribution system (during the initial cross-connection inspection), whenever an auxiliary water system is discovered on the Customer's premises, whenever a prohibited or inappropriately protected cross-connection is discovered on the Customer's premises, and whenever the Customer's premises is altered under a building permit in a manner that could change the backflow protection required at or for a service connection to the Customer.

c. **Inspections**

i. **General**

1. At all reasonable times, the customer's system shall be open for inspection to Departmental staff for the purpose of determining whether a cross-connection or other structural or sanitary hazard, including violations of this Policy, exists. When such a condition becomes known, the Department Director shall deny or

immediately discontinue service to the premises until the customer has corrected the condition in conformance with all laws relating to plumbing and water supplies and the rules contained in this Policy.

a. The Department has the right to inspect and/or test a backflow preventer on the customer's system for any reason including inspecting operational status and verification of device information.

ii. **Initial Inspections – Customers with Reclaimed Water**

1. If reclaimed water service is available, a Customer must follow the permitting procedures through the City's Development Services Department. Before the reclaimed water connection is activated, the appropriate City inspectors must confirm the following:
    a. Installation and connection meet appropriate plumbing code;
    b. No cross-connection cross-connections exist;
    c. A backflow preventer appropriate to the degree of hazard is installed;
    d. All valves, piping, and outlets are identified and labeled in compliance with F.A.C. requirements; and
    e. All required reclaimed water notification signage is present.

iii. **Periodic/Routine Inspections – Customers with Reclaimed Water**

1. All premises connected to the reclaimed water system shall be periodically re-inspected by the Department to confirm that no cross-connections exist at a minimum of once every three (3) years.

d. **Design and Performance Standards**

i. The types of approved backflow preventers are listed in Table 62-555.360-1, F.A.C., effective 5-5-14 and as amended from time to time.

ii. Approved backflow preventers must be manufactured in full conformance with the standards established by the AWWA and the latest edition of the Florida Building Code.

iii. Installation of backflow preventers shall be consistent with the installation criteria in the most recent AWWA Manual M14 as incorporated into Rule 62-555.360(2), F.A.C., effective 5-5-14 and as amended from time to time.

iv. It is the responsibility of the Customer and/or his/her designee to purchase and install the required backflow preventer at their premise except for residential reclaimed water customers. It is the responsibility of the Department to purchase and install the required backflow preventer at

Departmental facilities and for residential customers that utilize reclaimed water.

v. In order to adequately handle the maximum flow of the water meter, the backflow preventer shall be the same size as the meter or larger. It is recognized that if the water service line is sized smaller than the meter, the assembly should be the same size as the water service line.

e. **Backflow Preventer Installation Location**

i. For premises where the installation of a backflow preventer is required, an approved backflow preventer shall be installed on each potable water service line at a location at/or as close as practical to the point of water service connection but, in all cases, before the first plumbing system line off of a customer's water service connection with the exception of those premises where an air gap separation is required.

ii. The Department Director or his/her designee, may at his/her discretion, approve the installation of a required backflow preventer at an alternate location when he/she determines that the installation of the required backflow preventer at a location at/or as close as practical to the potable meter has the potential to create a hazard or is impractical but, in all cases, before the first plumbing system line off of a customer's water service connection.

f. **Records**

i. The Department shall maintain and keep current an inventory/database of backflow preventers within the City's service area.

ii. All records of installation, testing, and maintenance shall be submitted in a timely manner as prescribed by the Department to the City or its authorized contractor.

g. **Non-residential Installation, Maintenance and Re-certification Requirements**

i. **Installation/Replacement**

1. Installation or replacement of non-fire line backflow preventers that are not owned by the Department must be performed by a State-licensed plumbing contractor.
2. Installation or replacement of non-fire line backflow preventers that are owned by the Department may be performed by Department staff or by a State-licensed plumbing contractor.
3. Installation of backflow preventers as part of a fire suppression system must be installed by a Fire Protection Contractor I, II, or V

who is licensed by the State of Florida (Reference: Sections 633.021 and 633.541, Florida Statutes).

4. Replacement of backflow preventers as part of a fire suppression system must be performed by a Fire Protection Contractor I or II who is licensed by the State of Florida (Reference: Sections 633.021 and 633.541, Florida Statutes).
5. A copy of a required permit (if applicable) and initial test report shall be furnished by the Customer to the Department or its authorized contractor within 60 days of installation, replacement, or relocation of a backflow preventer.

ii. **Maintenance/Repair**

1. The Customer is responsible for maintaining satisfactory operation of their backflow preventers. All repairs on non-fire line backflow preventers must be performed by a Certified Backflow Prevention Repair Technician.
2. Maintenance and repair of backflow preventers as part of a fire suppression system must be performed by a Fire Protection Contractor I, II, or V who is licensed by the State of Florida (Reference: Sections 633.021 and 633.541, Florida Statutes).

iii. **Re-certification**

1. The Customer is responsible for hiring a Certified Backflow Prevention Assembly Tester to test and re-certify the Customer's non-fire line backflow preventers including air gaps on an annual basis. The annual recertification test date shall be within 30 days before or after the expiration of the previous certification. All test results must be submitted and received in a timely manner as prescribed by the Department to the City or its authorized contractor.
2. The Department is responsible for using a Certified Backflow Prevention Assembly Tester to test and re-certify the Department's non-fire line backflow preventers including, air gaps on an annual basis. The annual recertification test date shall be within 30 days before or after the expiration of the previous certification.
3. The Certified Backflow Prevention Assembly Tester must use a test method endorsed by the AWWA and as contained in the most recent AWWA Manual M14 as incorporated into Rule 62-555.360(2), F.A.C., effective 5-5-14 and as amended from time to time.
4. In the event the backflow preventer does not perform to manufacturer's specification during the test, a failing test report

shall be submitted to the Department or its authorized contractor. This will afford the Customer additional time to acquire estimates for repair, ordering of parts, and the scheduling of necessary shut-down, for the repair or replacement of the failing assembly.

5. Upon completion of testing, the Certified Backflow Prevention Assembly Tester shall affix to the assembly, in a semi-permanent manner, a weather-proof tag that identifies the plumbing or fire protection company performing the test and the month and year of the recertification.
6. Testing and re-certification of backflow preventers as part of a fire suppression system must be performed by a Fire Protection Contractor I, II, or V who is licensed by the State of Florida (Reference: Sections 633.021 and 633.541, Florida Statutes). All test results must be submitted and received in a timely manner as prescribed by the Department to the City or its authorized contractor.
7. Depending on the degree of hazard, the Department Director or designee may request inspections more frequently than once per year.

h. **Residential Installation, Maintenance and Re-certification Requirements**

i. **Installation/Replacement**

1. All residential Customers connected to the City's reclaimed water system are required to have, at a minimum, a dual check backflow preventer installed on the potable water service. The Department shall purchase and install a dual check backflow preventer on the residential potable water service connection when a reclaimed water service meter is set.
2. All residential customers connected to an auxiliary water system other than reclaimed water are required to have, at a minimum, a dual check backflow preventer installed on the potable water service. The customer shall purchase and have a State-licensed plumber install a dual check backflow preventer at the potable water service connection at a frequency not to exceed the minimum requirements specified in Rule 62-555.360, F.A.C. All records of installation and maintenance shall be submitted in a timely manner as prescribed by the Department to the City or its authorized contractor.
3. The Department shall purchase and replace dual check backflow preventers for residential customers connected to the reclaimed

water system at a frequency not to exceed the minimum requirements specified in Rule 62-555.360, F.A.C.

4. The residential Customers connected to an auxiliary water system other than reclaimed water shall purchase and have a State-licensed plumber replace dual check backflow preventer at a frequency not to exceed the minimum requirements specified in Rule 62-555.360, F.A.C. All records of replacement shall be submitted in a timely manner as prescribed by the Department to the City or its authorized contractor.

ii. **Maintenance**

1. The Department is responsible for maintenance of Department-owned dual check backflow preventers.
2. Residential customers are responsible for maintenance of customer-owned dual check backflow preventers.

iii. **Re-certification**

1. Recertification of Department owned dual check backflow preventers is not required.
2. Residential customers connected to an auxiliary water system other than reclaimed water shall provide a record of dual check backflow preventer replacement to the Department or its contractor within 30 days of replacement.

VII. Fees and Permits

a. **Annual Backflow Administration Fee**

i. The Department shall assess an annual fee for each backflow preventer connected to a customer's plumbing system and that fee shall be included on the customer's bi-monthly water bill. The backflow administration fee is specified in the current municipal facilities and services user fee schedule.

b. **Late Fees**

i. For each month (30 days) that the annual test report is past due, a late fee detailed in the current municipal facilities and services user fee schedule shall apply.

ii. If the annual test report is past due for greater than 90-days, the Department has the authority to terminate the water service.

c. **Installation/Replacement Permits**

i. The Customer and/or his/her designee shall be responsible for obtaining any and all applicable permits.

VIII. Penalties

a. **General**

i. Any person who knowingly fails or refuses to obey or comply with or willfully violates any of the provisions of this manual or any lawful rule or regulation promulgated hereunder or any lawful order of the Department Director issued pursuant to the provisions of this manual shall, upon conviction of such offense, be subject to punishment as provided by law. Each day during which the knowing or willful failure or refusal to comply with this manual continues shall constitute a separate offense.

b. **Fines**

i. Any person who violates any of the provisions of this manual shall be liable to the City for all costs and damages incurred by the City as a proximate result of such violation, plus a fine up to $500.00 per day.

IX. Public Education Program

a. During each initial or routine cross-connection inspection, the Department shall provide the customer with educational literature on the safe use of reclaimed water. The literature will also include information on the City's reclaimed water treatment and distribution system, how to protect the Customer's system, cross-connection control, and water conservation.

b. Tours of the reclaimed water treatment facility are available to groups of 15 or larger by contacting the Department's Program Policy Coordinator. Groups of less than 15 persons may contact the Department's Program Policy Coordinator and be placed on a waiting list.