Greater Pine Island Water Association, Inc.

CROSS-CONNECTION CONTROL PROGRAM

Revised: June 2023

I. Purpose

A. To protect the public potable water supply served by GPIWA from contamination due to Backflow and Back-Siphonage.

B. To eliminate existing cross-connections not in compliance with this program and requiring compliance with this Cross-Connection Program.

C. To incorporate this Cross-connection program into GPIWA rules and regulations.

II. Authority

A. The authority to enact a mandatory cross-connection program is pursuant to federal and state laws such as the Federal Safe Drinking Water Act of 1974, Florida Administrative Code Chapters 62-555.360, and as referenced by AWWA Manual M14. These laws assign the water purveyor the primary responsibility for preventing water from unapproved sources, or any other substances, from entering the public potable water system.

III. Definitions

A. **Approved -** Accepted by GPIWA as meeting an applicable specification stated or cited in this regulation, or as suitable for the proposed use.

B. **Auxiliary Water Supply -** Any water supply, on or available, to the premises other than the purveyor's approved public potable water supply.

C. **Backflow -** The undesirable reversal of flow of water or mixtures of water and other liquids, gases, or other substances into the distribution pipes of the potable water supply from any source.

D. **Backflow Preventer –** An approved device/s or means designed accordingly dependent on the degree of hazard to prevent backflow or back siphonage into a potable water system.

1. **Reduced Pressure Principal Assembly (RPZ)-** A mechanical backflow preventer that consists of two independently acting check valves, a mechanically independent pressure differential relief valve between the check valves. It includes shutoff valves at each end of the assembly and is equipped with test cocks. It is effective against back siphonage and backpressure and is used in high hazard situations.

2. **Double Check Valve Assembly (DC)-** A mechanical backflow preventer that consists of two independently acting check valves. It includes shutoff valves at each end of the assembly and is equipped with test cocks. It is used in low hazard situations.

3. **Residential Dual Check (RDC)-** It is similar to a Double Check Valve Assembly but is not usually equipped with shutoff valves or test cocks. It is used only in low hazard, residential situations.

4. **Air Gap (AG) -** An approved AG is a piping system that provides an unobstructed vertical distance through free atmosphere between the lowest point of a water supply outlet and the overflow rim of an open, non-pressurized receiving vessel into which the outlet discharges (minimum distance for the gap is 2 times the inside pipe diameter (2x)). The AG must be located in such a way to ensure that fumes or other airborne substances cannot be siphoned into the potable water system.

E. **Backflow Technician -** A person who holds one or all of the FDEP licenses below and whose training is recognized by the Florida Section of American Water Works Association.
   1. **Tester Technician** – A person who holds a current license allowing him to test backflow devices.
   2. **Repair Technician** - A person currently licensed to clean or repair backflow devices.

F. **Backpressure -** A condition in which the water pressure is greater within the customer's piping than the pressure being supplied by the water purveyor's system.

G. **Back siphonage -** The flow of water or other liquids, mixtures, or substances into the distribution pipes of a potable water supply system from any source other than its intended source caused by the sudden reduction of pressure in the potable water supply system.

H. **Contaminant** - A substance that will impair the quality of the water to a degree that it creates a health hazard to the public.

I. **Cross-Connection** - Any actual or potential connection between the public potable water supply and any unknown source.

J. **GPIWA** – Greater Pine Island Water Association Inc. or water purveyor.

K. **Owner** – Any member of GPIWA to include any person that can act on the member's behalf, or who has legal authority to allow entrance to a property upon which a cross-connection inspection is to be made, or upon which a cross-connection is present.

L. **Program** – Shall mean the Cross-Connection Control program adopted by GPIWA Board of Directors.

M. **Pollutant** - A foreign substance, which if permitted to get into the public water system will degrade the water quality, but not create a health hazard.

N. **Water Service Entrance -** That point in the owner's water system beyond the sanitary Control of GPIWA, generally considered the outlet end of the water meter and always before an unprotected branch.

IV. Administration

GPIWA will setup, and administer a cross-connection control program, to include but not limited to:

A. Maintaining a database that will list all devices/type of device(s) and location of each device within its distribution system.

B. Define the degree of hazard for each member account and notify members of the requirement for the installation of a backflow device based on the degree of hazard defined.

C. Issue annual notifications to all members (or its authorized entities) who have a backflow device in place that has been determined to require yearly certification. The notification shall include the date the device is due for recertification. It is Owner's responsibility to provide current contact information to GPIWA.

D. GPIWA will maintain and issue with each notification, an updated list of private contractors who are certified to install, test, and repair backflow assemblies. The list shall also be published on the GPIWA website.

E. GPIWA will maintain all records as required by the State of Florida Department of Environmental Protection (FDEP) and other governing agencies.

V. Requirements

A. GPIWA

1. GPIWA will not allow any cross-connections within its potable water system to remain in service unless it is protected by an approved backflow control device.
2. On all new or retro fitted installations other than residential dual check valves, GPIWA will provide the necessary information and forms for a satisfactory installation.
3. GPIWA will not test, install, or perform maintenance on any backflow prevention device privately owned as that is the Owner's responsibility.
4. GPIWA will immediately terminate water service if it determines that a serious threat to the public health exists due to a cross-connection.
5. GPIWA shall specify the type of backflow assembly that will be required.
6. GPIWA shall supply all forms needed for the installation, testing and repair of the required backflow assembly.

B. Owner

1. The Owner is responsible for the elimination of all existing and potential cross-connections beyond the water service entrance on its premises.
2. The Owner, upon issuance of a notice by GPIWA, shall comply with all requirements of the notification.
3. The Owner shall be responsible for all costs incurred in the purchase, installation, repair, and annual recertification of all testable backflow devices.
4. The Owner shall not install a bypass around any backflow preventer unless there is a backflow preventer of the same type on the bypass. Owners who cannot shut down operation for testing of the device(s) must supply additional devices necessary to allow testing to take place.
5. The Owner shall have a backflow preventer(s) installed in a manner approved by AWWA (M14), Southern Plumbing Codes, and/or any State/County codes that GPIWA finds to be applicable.

C. Schedule for Compliance

1. When GPIWA at any time determines that a serious threat to the public health exists; Owner's water service will be terminated immediately until the hazard is eliminated.

2. GPIWA shall perform routine backflow/cross-connection hazard analysis inspections. Should hazards be identified, the Owner shall be informed in writing of the identified hazard(s), the method(s) for achieving the correction, and a timetable for the corrections to be made.

    a. The time for compliance shall be specified in the notice and compliance period shall be no longer than thirty (30) calendar days from the date of the issuance of the initial notice requiring corrective action. The Owner shall mitigate the identified hazard(s) as specified in the notice. However, the time for compliance may be shorter than thirty days depending upon the degree of hazard involved and/or any negative history of existing backflow device(s) that may have been installed prior to the implementation of this program.

    The Owner may request an extension in writing based upon extenuating circumstances as to why the corrective action cannot be taken within the allotted time. GPIWA, on a case-by-case basis, may grant an extension of time to the Owner up to but not to exceed, (15) fifteen days. The consideration for an extension will be weighed against the degree of hazard and is not automatic.

Upon elimination of the identified hazard(s), the Owner shall notify GPIWA in writing, and include all completed forms and certifications requested by GPIWA in the initial notification.

b. Should an Owner not mitigate the identified hazard(s) in the time allotted, GPIWA shall send a second notification to the Owner that its failure to comply in a timely manner shall lead to a termination of water service. The Owner shall be given no more than seven (7) days from the date of the issuance of the non-compliance (second) notification to contact GPIWA and work out a schedule of compliance (not to exceed an additional (7) days).

c. Should the Owner fail to comply with subsection a. or b. above, GPIWA shall issue to the Owner a registered letter saying that water service shall be terminated on a date specified in the registered letter.

d. Water service to the Owner's property shall not be reinstated until:

   i. All hazards are mitigated and/or a proper backflow device has been installed and tested as approved by GPIWA.
   ii. All forms required by GPIWA must be completed and certified by a Backflow Technician.
   iii. Fees outlined in Section XII: Fees and Charges of this document must be paid.

D. Commercial Accounts

1. **Inspections:** GPIWA shall perform an initial backflow/cross-connection hazard analysis inspection of all commercial accounts. Hazards will be identified according to but limited to, Exhibit A or DEP Rule 62-555.360(table)-2. Should hazard(s) be identified, the property owner shall be informed in writing of the identified hazard(s), the method(s) for achieving the correction, and the timetable as outline in Section "C" for the corrections to be made.

2. **Commercial Fire Lines:** All fire protection service lines and mains specifically for private fire hydrants shall have an approved Double Check Detector Assembly (DCDA) installed prior to the connection point with GPIWA's potable water system. A fire protection system which incorporates chemical additives or has access to an auxiliary water supply shall have an approved Reduced Pressure Detector Assembly (RPDA) installed prior to the connection point with GPIWA's potable water system. Pressure loss across backflow prevention assemblies must be accommodated in the design or redesign of the fire protection system if it is to function properly. **It is the Owner's responsibility to verify that their device accommodates the flow rate required by local fire codes.**

3. **Marine and Dockside Facilities:** Where water is delivered to a marine repair facility, a reduced-pressure principal backflow prevention assembly should be installed at the user connection. Where water is delivered directly (piped) to vessels for any purpose, or where water is delivered to small-boat moorages (marinas) that maintain hose bibs on a dock or float, a reduced-pressure principal backflow prevention assembly should be installed at the user connection and a hose connection vacuum breaker should be installed.

E. Residential Customers

Residential Owners shall have a hose connection vacuum breaker installed on all potable water hose bibs on the property (including docks). In addition, if the following applies the recommended device should be installed after the meter and before the customer's shutoff valve.

1. Residential Fire Lines: All fire protection systems will require a double check device unless the system incorporates chemical additives or has access to an auxiliary water supply. These systems require a reduced pressure principal device (RPZ). Pressure losses across backflow prevention devices must be accommodated in the design or redesign of the fire detection system if it is to function properly. **It is the Owner's responsibility to verify that their device accommodates the flow rate required by local fire codes**.

2. Residential Irrigation: Irrigation systems with chemical/fertilizer additives will require an upgrade to a Reduced Pressure Principal Assembly (RPZ).

VI. Reclaimed Water

Any property that is served by GPIWA's potable water system and also utilizes reclaimed water will require a Reduced Pressure Principal Assembly (RPZ).

VII. Thermal Expansion

The Owner must be aware that installation of a backflow prevention device may result in a potential closed plumbing system within its residence. This notification is in the GPIWA rules and GPIWA has no additional responsibility to notify Owners. Owner is hereby notified that provisions may have to be made and paid for by the Owner to provide for thermal expansion within his closed loop system, i.e., the installation of thermal expansion devices and/or pressure relief valves.

VIII. Degree of Hazard

GPIWA recognizes the threat to the public water system arising from cross-connections. All threats will be classified by degree of hazard or potential hazard. The degree of hazard will determine the type of backflow device required. (See Exhibit A – Premises Requiring Reduced Pressure Principal Assemblies which is attached and incorporated herein)

IX. Existing In-Use Backflow Prevention Device(s)

Any existing backflow preventer shall be permitted to continue in service unless GPIWA determines the degree of hazard is higher than the device is designed for. If the device is not appropriate for the degree of hazard an upgrade will be required. GPIWA will notify the Owner of the corrections needed and the time requirements for the upgrade to be completed.

X. Annual Testing

A. A Backflow Technician shall annually test all testable backflow devices.

B. Any backflow control device which fails during its test shall be repaired or replaced immediately. When repairs are necessary, the device shall be re- tested and results of both tests submitted to GPIWA. If replacement is necessary, the new device shall be tested and the results submitted to GPIWA. If the device cannot be repaired or replaced immediately, it is the responsibility of the Owner to notify GPIWA. GPIWA shall determine the degree of hazard and whether service shall be terminated or allowed to operate until replacement is installed.

C. Any device with a history of multiple test failures will require semi- annual testing or replacement.

XI. Records and Reports

Records:

The GPIWA will maintain the following:

A. Master files of a commercial customer's initial premises inspection, the degree of hazard, device type, installation date, initial test results, annual test results, and all repairs or replacement of the device.

B. Master files of all residential backflow devices, installation date, and rebuild or replacement dates.

C. A list of Backflow Technicians.

I. Reports/Forms:

A. An initial installation and test report of a new backflow device must be completed and sent by Owner to GPIWA within 30-days to avoid serviced

interruption.

B. Annual test reports must be sent to GPIWA within 30 days. All forms may be obtained from GPIWA Business Office.

XII. Fees and Charges

A. Should GPIWA terminate water service for lack of Owner's compliance with the Program, Owner shall be responsible for all payments and charges as set forth in the GPIWA Rules for termination of service based upon non-payment. and reconnection to the system.

B. GPIWA has no control over the fees charged by Backflow Technicians **GPIWA does not offer this service.** GPIWA does not recommend any entities that offer these services. However, GPIWA may maintain a list of local Backflow Technicians to assist its members as a courtesy only.

Exhibit A

Premises Requiring Reduced Pressure Principal Assemblies

1	
2	Agricultural/Aqua-Culture
3	Auto Repair
4	Art Galleries
5	Car Washes
6	Cement Plants
7	Commercial Laundries/ Dry Cleaners
8	Condo Common Areas/Pool
9	Convenient Stores
10	Daycare Facilities
11	Film Processing Facilities
12	Fire Protection System with chemical additives
13	Irrigation Systems with chemical/fertilizer additives
14	Hotel/Motels
15	Laboratories
16	Medical Facilities
17	Marinas and Docks
18	Manufacturing Facilities with toxic substances onsite
19	Pest Exterminating Business
20	Reclaimed water usage
21	Restricted Access /Classified Facilities
22	Restaurants
23	Schools
24	Seafood Houses
25	Supermarkets
26	Travel Trailer Facility
27	Veterinary Establishments
28	Wastewater Lift Stations
29	Wastewater Treatment Plants
30	Water Storage/Reservoir