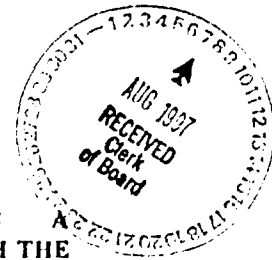


ORDINANCE NO. 97- 33



AN ORDINANCE CREATING AND ESTABLISHING CROSS-CONNECTION CONTROL PROGRAM; SETTING FORTH THE PURPOSE; PROVIDING DEFINITIONS; PROVIDING AN OPERATION POLICY; PROVIDING FOR INSTALLATION, MAINTENANCE AND TESTING REQUIREMENTS FOR COUNTY OWNED AND PRIVATELY OWNED BACKFLOW PREVENTION ASSEMBLIES; PROVIDING RESPONSIBILITIES OF THE COLLIER COUNTY WATER DEPARTMENT; PROVIDING PROGRAM RESPONSIBILITIES; PROVIDING FOR BACKFLOW PREVENTION SYSTEMS; PROVIDING FOR BACKFLOW PREVENTION SYSTEM DESIGN; PROVIDING SERVICE AND REPORTING SCHEDULES AND REQUIREMENTS FOR BACKFLOW PREVENTION ASSEMBLIES; PROVIDING FOR TECHNICAL IMPLEMENTATION; PROVIDING FOR FUNDING; PROVIDING FOR TERMINATION OF SERVICE; PROVIDING FOR PENALTIES; PROVIDING FOR THE COLLECTION OF FEES, CHARGES AND RATES; PROVIDING FOR CONFLICT AND SEVERABILITY; PROVIDING FOR INCLUSION IN THE CODE OF LAWS AND ORDINANCES; AND PROVIDING AN EFFECTIVE DATE.

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WHEREAS, Florida Administrative Code Rule 62-555.360 requires all community water systems to have a cross-connection control program; and

WHEREAS, Florida Administrative Code Rule 62-610.470 requires that all communities served by reclaimed water have a cross-connection control program to prevent contamination of the potable water system; and

WHEREAS, establishment and maintenance of a cross-connection control program is a condition and requirement of operating permits issued by the Florida Department of Environmental Protection to the Collier County Water-Sewer District and Goodland Water District; and

WHEREAS, the Board of County Commissioners of Collier County, Florida, finds it to be in the best interest of the public to have a County operated and maintained cross-connection control program to monitor hazards to the County's Public Water System and to protect the public health, safety and welfare by providing for, among other things, the installation, ownership, repair and testing of backflow prevention assemblies.

NOW, THEREFORE, BE IT ORDAINED BY THE BOARD OF COUNTY COMMISSIONERS OF COLLIER COUNTY, FLORIDA, that:

SECTION ONE: TITLE AND CITATION.

This Ordinance shall be known as and cited as "The Collier County Cross-Connection Control / Backflow Prevention Ordinance".

SECTION TWO: FINDINGS.

The Board of County Commissioners hereby makes the following findings:

- A. That Florida Administrative Code Rule 62-555.360 and 62.610.470 requires all community water systems to establish a cross-connection control program to detect and prevent cross-connections that create or may create an imminent and substantial danger to public health and safety.

B. That the Collier County Water-Sewer District and the Goodland Water District are community water systems as defined by Florida Administrative Code Rule 62-550.200 (9).

C. That the establishment and maintenance of a cross-connection control program is a condition and requirement of County's water and wastewater operating permits issued by the Florida Department of Environmental Protection to the Collier County Water-Sewer District and the Goodland Water District.

D. That the health, safety and welfare of persons using and/or relying upon the Public water system of the Collier County Water-Sewer District and the Goodland Water District is best served and protected by the establishment and maintenance of a cross-connection control/backflow prevention program, including provisions for installation of backflow prevention assemblies, to prevent the County's Public Water System from becoming polluted or contaminated by backflow from actual or potential contaminants or pollutants.

E. That it is in the best interest of the users of the Collier County Water-Sewer District and Goodland Water District and the public generally that if, in accordance with this Ordinance, a backflow prevention assembly must be installed as part of any water service connection within either the Collier County Water-Sewer District or Goodland Water District, that the Collier County Water Department shall install and maintain or cause to be installed and maintained the appropriate backflow prevention assembly for the degree of hazard presented and the County shall own the backflow prevention assembly.

#### SECTION THREE: DEFINITIONS.

For the purposes of this Ordinance, the definitions contained in this Section shall apply unless otherwise specifically stated. Words used in the present tense include the future, words in the plural number include the singular, and words in the singular include the plural. The word "shall" is always mandatory and not merely discretionary.

Air Gap Separation: A physical separation between the free-flowing discharge end of a potable water supply pipeline and an open or non-pressure receiving vessel. An approved air-gap separation shall be at least double the diameter of the supply pipe as measured vertically above the top of the rim of the receiving vessel. In no case, shall the air-gap be less than one inch.

Approved List: The list of certified backflow prevention assembly technicians and cross-connection survey technicians who have submitted their certification and in the case of assembly technicians, the most recent calibration results on their testing equipment, to the Department for review and approval. All applicants meeting these requirements shall be approved to perform work on private and County owned backflow assemblies. To remain on the approved list, applicants must comply with all the requirements listed within this Ordinance and the requirements under which they were certified.

Auxiliary Water Supply: Any water supply on or available to a facility other than the County's water system, which is not permitted by the Florida Department of Environmental Protection and over which the County does not have sanitary control. Auxiliary water supplies may include water from another public water supply, any natural source such as a well, spring, river, stream, harbor or used water, reclaimed water or industrial fluids.

Backflow: A reversal of the normal direction of flow, which has the potential to introduce used water or mixtures of used water and other liquids, gases or other substances into the County's Public water system from a source or sources. Backflow may occur as the result of back-pressure, back-siphonage or both.

Back-Pressure: Any elevation of pressure in the downstream piping system caused by a pump, elevated tank, boiler, or other means that could create pressure within that system, greater than the supply pressure of the County's water system which, would cause, or tend to cause, a reversal of the normal direction of flow.

Backflow Prevention Assembly, Approved: A mechanical assembly that meets those standards as set forth by the American Water Works Association (AWWA), the American Society of Sanitary Engineers (ASSE), and the Foundation for Cross-Connection Control and Hydraulic Research (FCCC), that has been approved for the prevention of backflow, as back-pressure and back-siphonage, by the Foundation for Cross-Connection Control and Hydraulic Research, and is published in the FCCC's List of Approved Backflow Prevention Assemblies.

Backflow Prevention Assembly Test Equipment, Approved: Equipment recommended by the assembly manufacturer and approved by the Department.

Backflow Prevention Assembly, Test Methods, Approved: Methods as approved by the American Water Works Association (AWWA) or the Foundation for Cross-Connection Control and Hydraulic Research (FCCC), whichever is more stringent.

Backflow Control: A connection between a County's water system and a facility's system with an approved and appropriate backflow prevention assembly properly installed that will continuously afford protection against contamination or pollution commensurate with the degree of hazard.

Backflow Prevention Assembly Technician, Approved: Any person holding at a minimum a valid and current certificate from the University of Florida TREECO Center (UF/TREECO) or equivalent certification program as a certified backflow prevention assembly technician and who has submitted the proper documentation to the Department.

Back-Siphonage: A form of backflow due to a reduction of pressure in the County's Public Water System.

Contamination: An impairment of the quality of the County's Public Water System by sewage, industrial fluids or wastes, compounds or other materials to a degree which creates an actual hazard to the public health through poisoning or through the spread of disease.

County: For purposes of this Ordinance, the term "County" shall mean Collier County, a political subdivision of the state and, where the context requires or warrants, shall also be deemed to include the Collier County Water-Sewer District and the Goodland Water District.

County's Public Water System: For purposes of this Ordinance, the term "County Public Water System" shall mean any or all components of either or both the Collier County Water-Sewer District and Goodland Water District's water systems.

Cross-Connection: Any physical arrangement whereby the County's Public Water System is connected, directly or indirectly, with any other water supply, sewer, drain, conduit, pool, storage reservoir, plumbing fixture, or other device which contains or may contain

contaminated water, sewage or other wastes or liquids of unknown or unsafe quality, which may be capable of imparting contamination to the public water system, as the result of backflow. By-pass arrangements, jumper connections, removable sections, swivel or changeable devices, or other temporary or permanent devices, through which or because of which, backflow could occur are considered to be cross-connections unless otherwise specified within this Ordinance.

Cross-Connection Control: The installation of an approved backflow prevention assembly as part of the County's service connection to a facility where there are actual or potential cross-connections.

Cross-Connection Control Program: The findings, requirements and procedures established by this Ordinance and any administrative policies and operational procedures established by the Department to administer and effectuate this Ordinance.

Department: The Collier County Water Department.

Double Check Valve Assembly (DC), Approved: An assembly composed of two single, independently acting, check valves including a tightly closing approved shut-off valve located at each end of the assembly and approved connections (testcocks) for testing the water tightness of each check valve. The check valve shall permit no leakage in a direction reverse of normal flow. The closure element shall be internally weighted or otherwise loaded to promote rapid and positive closure and supplied with replacement valve seats. Only those double check valve assemblies (DC) approved by the Foundation for Cross-Connection Control, Hydraulic Research (FCCC) and the Department are acceptable for installation.

Double Detector Check Valve Assembly (DDC), Approved: An assembly of two independently operating approved check valves with replaceable seats and tightly closing approved shut-off valves on each side of the check valves, plus properly located and approved testcocks for the testing of each check valve. A bypass (detector) arrangement consisting of an approved meter and an approved double check valve assembly shall be incorporated with the assembly for detection of leaks or unauthorized use of water. Only those double detector check valve assemblies (DDC) approved by the Foundation for Cross-Connection Control, Hydraulic Research (FCCC) and the Department are acceptable for installation.

Facility: A residence, building, structure, property, business, operation or premises of any kind that is connected or seeks to connect to the County Public Water System.

Facility Owner: The owner, and to the extent the purposes and requirements of this Ordinance warrant, a lessee or sublessee of a residence, building, structure, property, business, operation or premises of any kind that is connected or seeks to connect to the County Public Water System to receive water through the service connection. The term "facility owner" shall also include any agent or representative of a facility owner acting for or on behalf of the facility owner.

Facility's System: The facility's system shall begin beyond the County's service connection. The facility's system may include a potable water system, an industrial piping system or both and may be supplied by the County Public water system or an auxiliary water system or both.

Ground Water Source: Water that is withdrawn from an underground aquifer that is not considered by the Florida Department of Environmental Protection to be under the direct influence of surface water.

Hazard, Degree of: The term is derived from an evaluation of the potential risk to the public's health, safety and welfare and the potential adverse effect upon the County's Public Water System.

Hazard, Health: A cross-connection or potential cross-connection involving any substance that could, if introduced into the County's Public Water System, cause death, illness, spread disease or have a high probability of causing such effects.

Hazard, Non-Health: 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 County's Public Water System.

Hazard, Pollution: An actual or potential threat to the physical properties or the potability of the County's Public water system, which would constitute a nuisance or be aesthetically objectionable or could cause damage to the County's Public Water System or its appurtenances, but would not be dangerous to health.

Hazard, System: An actual or potential threat of severe damage to the physical properties of the County's Public Water System from pollution or contamination which would have a protracted effect on the quality of the County's Public Water System.

Industrial Fluids: Any fluid or solution which may be chemically, biologically or otherwise contaminated or polluted in a form or concentration such as would constitute a health, non-health, plumbing, pollution or system hazard if introduced into the County's Public Water System. This may include, but is not limited to: polluted or contaminated waters; all types of processed waters and used waters originating from the County's Public Water System which may deteriorate in sanitary quality; chemicals in fluid form; plating acids and alkalis; circulated cooling waters connected to an open cooling tower or cooling towers that are chemically or biologically treated or stabilized, with toxic substances; contaminated natural waters, such as from wells, springs, rivers, bays, harbors, seas, irrigation canals or systems; oils, gases, glycerin, paraffins, caustic and acid solutions and other liquids and gaseous fluids used for industrial or other purposes or for fire-fighting purposes.

Reclaimed Water: Any source or supply of water which contains in part or entirety water from a wastewater treatment facility in excess of 10%.

Reduced Pressure Zone Assembly (RPZ), Approved: An assembly containing two independently acting approved check valves with replaceable seats together with a hydraulically operating, mechanically independent pressure differential relief valve located between the check valves and at the same time below the first check valve. The unit shall include properly located and approved testcocks and tightly closing and approved shut-off valves at each end of the assembly. Only those reduced pressure zone assemblies (RPZ) approved by the Foundation for Cross-Connection Control, Hydraulic Research (FCCC) and the Department are acceptable for installation.

Reduced Pressure Zone Detector Assembly (RPZD), Approved: An assembly containing two independently acting approved check valves with replaceable seats together with a hydraulically operating, mechanically independent pressure differential relief valve located between the check valves and at the same time below the first check valve. The unit shall include properly located and approved testcocks and tightly closing and approved shut-off valves, at each end of the assembly. A bypass arrangement consisting of an approved water meter and an approved reduced pressure zone assembly shall be incorporated into the mechanism. Only those reduced pressure zone detector assemblies (RPZD) approved by the Foundation for Cross-Connection Control, Hydraulic Research (FCCC) and the Department are acceptable for installation.

Service Connection: The term "service connection" shall refer to a County owned and maintained water service connection to any facility and shall include the corporation stop, valving, saddle, service line and all fittings up to and including the meter and any backflow prevention assembly installed in accordance with this Ordinance. Ownership and maintenance of the service connection shall be is the responsibility of the County.

Surface Water Supply: Any source or supply of water which contains in part or entirety water from a lake, canal, pond, retention area or wetland in excess of 10% shall be considered a surface water supply.

Water, Non-Potable: Water that is not safe for human consumption or that is of questionable quality.

Water, Potable: Water that is safe for human consumption as described by the Florida Department of Environmental Protection.

Water Purveyor: For the purposes of this Ordinance, the term "water purveyor" shall refer to the Collier County Water-Sewer District and Goodland Water District.

Public Water Supply, Approved: Any public or private potable water supply or system which has been approved by the Florida Department of Environmental Protection and which is operating under a valid Florida Department of Environmental Protection operating permit.

Water Supply, Unapproved: A water supply which has not been approved for public consumption by the Florida Department of Environmental Protection.

Water, Used: Refers to any water supplied by the County water system (s) after it has passed through the customer's service connection and is no longer under the sanitary control of the County.

#### **SECTION FOUR: OPERATION POLICY AND REQUIREMENTS.**

##### **A. Operation Policy.**

1. No service connection that creates an actual or verified potential hazard to the County's Public Water System shall be installed or maintained by the County unless the County's Public Water System is protected as required by this Ordinance. Service of water to any premises shall be discontinued by the County if a backflow prevention assembly required by this Ordinance is not installed, tested and maintained or if it is found that a backflow prevention assembly has been removed or tampered with. Service shall not be restored until such conditions or defects are corrected.

2. The facility owner shall be responsible for monitoring the changes in use of the facility and the degree of hazard that those changes represent to the County's Public Water System in accordance with this Ordinance. Failure to provide this information to the Department in a timely manner may result in immediate discontinuance of service until the facility owner has corrected the hazard and reported the information, as required under this Ordinance, to the Department.

3. An approved and appropriate backflow prevention assembly shall be installed as part of each service connection wherever and whenever any of the following conditions exist beyond the water service connection:

a. An auxiliary water supply exists that is not maintained or permitted by the Department of Environmental Protection.

b. Industrial fluids or any other objectionable substances are handled in such a fashion as to create an actual or potential hazard of any kind to the County's Public Water System.

c. Internal plumbing or piping arrangements are not known, making it impracticable or impossible to ascertain whether or not cross-connections exist.

4. The type of backflow prevention assembly required shall depend upon the degree of hazard that may exist as follows:

a. In cases where there is a surface water auxiliary supply, the County's water system shall be protected by an approved air-gap separation or an approved reduced-pressure principle backflow prevention assembly.

b. In cases where there is a ground water auxiliary water supply, the County's Public Water System shall be protected by an approved double check valve assembly.

c. In cases where there are any substances that would be objectionable, but not hazardous to health, the County's Public Water System shall be protected by an approved double check valve assembly.

d. In cases of a facility, where material is stored or handled so as to create an actual or potential hazard of any kind to the County's Public Water System, the Public water system shall be protected by an approved air-gap separation or an approved reduced-pressure principle backflow prevention assembly.

e. In cases of any facility, where because of security requirements or other prohibitions or restrictions, it is impossible or impractical to make a complete cross-connection survey, the County's Public Water System shall be protected against backflow by either an approved air-gap separation or an approved reduced-pressure principle backflow prevention assembly.

f. In cases of any facility, where the Department determines an undue health threat is posed because of the presence of extremely toxic substances, the Department may require an air gap at the service connection to protect the County's Public Water System.

5. Any required backflow prevention assembly and its configuration shall be

as specified by this Ordinance, the Collier County Utility Standards and Procedures Ordinance, Ordinance No. 97-17, any amendments or successors thereto, and the Department's administrative and operational procedures.

6. In the case of any facility, where a backflow prevention assembly is installed, it shall be the responsibility of the facility owner to adhere to the requirements for facility owners as specified within this Ordinance.

7. All persons or companies providing services to the County or the facility owner as specified by this Ordinance shall comply with all provisions and requirements of this Ordinance. Failure to adhere to the requirements contained within this Ordinance shall be grounds for removal from the Department's approved list or termination of any County contracts for the provision of services under this Ordinance.

8. All installed backflow prevention assemblies existing as of the effective date of this Ordinance that do not meet the requirements of this Ordinance, but that were approved assemblies for the purposes of this Ordinance at the time of installation and that have been properly maintained, shall be exempt from the construction standards of this Ordinance and the Department's related administrative and operational procedures provided that any such backflow prevention assembly will satisfactorily protect the County's Public Water System. Whenever any such existing assembly is moved from its present location or requires replacement, the assembly shall be replaced by an approved backflow prevention assembly meeting all of the requirements of this Ordinance.

B. County Owned Backflow Prevention Assemblies, Installation, Maintenance and Testing Requirements.

1. Ownership. The County shall own all backflow prevention assemblies as required by this Ordinance.

2. Installation. The County shall install or cause to be installed the appropriate new or replacement backflow prevention assembly in accordance with this Ordinance.

3. Maintenance. The County shall maintain or cause to be maintained all backflow prevention assemblies in accordance with this Ordinance.

4. Testing. The County shall test or cause to be tested all backflow prevention assemblies in accordance with this Ordinance.

SECTION FIVE: DEPARTMENT RESPONSIBILITIES.

The County shall maintain a Cross-Connection Control and Backflow Prevention Section within the Department to administer the requirements of this Ordinance. The Department shall maintain a minimum staff of certified personnel to perform and or oversee the following services as required by this Ordinance:

- A. Cross-Connection Survey Reports review;
- B. Site (field) inspections;
- C. Cross-connection control systems approval;
- D. Emergency services and inspections;
- E. Educational assistance regarding cross-connection control;



- F. Maintenance and correlation of data generated by the cross-connection control program;
- G. Administration of all fees and penalties of this program;
- H. Review of qualifications established under this Ordinance for approving private independent testers and repair technicians;
- I. Administration of any County contracts for the installation, maintenance, repair and testing of backflow prevention assemblies; and,
- J. Installation, maintenance, repair and testing of backflow prevention assemblies.

**SECTION SIX: PROGRAM RESPONSIBILITIES.**

**A. Facility Owner (Privately Owned Assemblies).**

1. The facility owner shall be responsible for evaluating the hazard posed by the facility's system or facility's use and ensuring, by installation of an appropriate backflow prevention assembly, that water from an unsuitable source or any other harmful substance does not enter the County's Public Water System.

2. All facilities (new and existing) that pose a hazard to the County's Public Water System shall comply with all terms of this Ordinance under the direction of the Department.

3. The facility owner shall comply with all requirements specified by the Department in its administration of this Ordinance.

4. Upon order by the Department, the facility owner shall install, or cause to be installed, a backflow prevention assembly and shall maintain such assembly at the facility owner's expense.

5. The facility owner shall be directly responsible, and wholly liable, for all procedures regarding the facility's backflow assembly.

6. No facility owner may alter the backflow prevention assembly protecting the County's Public Water System unless such alteration is approved by the Department.

7. No facility owner may circumvent the facility's backflow assembly protecting the County's Public Water System.

8. No facility owner shall operate the facility's internal water system when any part of that system is malfunctioning in a manner that poses a hazard of any kind to the County's Public Water System.

9. The facility owner shall immediately report to the Department any malfunction or damage which could affect the assembly's ability to protect the County's Public Water System.

10. The facility owner shall be responsible for arranging all installations, testing, repairs or overhauls in accordance with this Ordinance. In addition, the facility owner shall be responsible for maintaining copies of all documentation and results of all tests, repairs, overhauls, and replacements for the backflow assembly protecting the County's Public Water System, on file at the facility's location for a minimum of ten (10) years.

11. The facility owner shall maintain a copy of the facility's cross-connection survey report at the facility's location at all times.

B. Facility Owner (County Owned Assemblies).

1. The facility owner shall be responsible for evaluating the hazard that the facility's system or facility's use poses to the County's Public Water System and reporting that information to the Department so that the Department may install or cause to be installed an appropriate backflow prevention assembly.

2. The facility owner is responsible for evaluating the effect of changes to the facility's water system or use of the facility over time to ensure that the existing backflow prevention assembly is appropriate for that hazard and reporting that information to the Department.

3. The facility owner is responsible for immediately notifying the Department if the backflow prevention assembly is observed to be either malfunctioning or damaged.

C. The Department (Privately Owned Assemblies).

1. The Department shall review and approve the data submitted by facility owners for the installation, repairs and overhauls of privately owned assemblies required under this Ordinance or that were existing as of the effective date of this Ordinance.

2. The Department shall have the authority to prohibit a service connection or order the disconnection of service to any connection where:

(a). Any kind of hazard exists to the County's Public Water System;

(b). The facility owner fails to install, operate and maintain an approved and appropriate backflow prevention assembly in accordance with this Ordinance.

(c). The Department may inspect all new backflow assembly installations for compliance with this Ordinance, the Collier County Utility Standards and Procedures Ordinance, Ordinance No. 97-17, any amendments or successors thereto, AWWA Manual M-14 Second Edition and other applicable Department administrative and operational procedures.

(d). The Department shall accept for review only those cross-connection survey reports as performed by the facility owner on the Department's self-evaluation forms or performed by a certified cross-connection control survey inspector or professional engineer.

(e). The Department shall accept for review only those initial certification tests, scheduled tests, overhauls, repairs, and replacement reports for any backflow prevention assembly performed by a certified technician from the Department's approved list.

(f). The Department shall establish a schedule acceptable to the Florida Department of Environmental Protection under which all existing facilities will be brought into compliance with the terms of this Ordinance.

(g). The Department shall compile and maintain all significant data resulting from reports submitted under this Ordinance.

(h). The Department shall require additional data on any report as

deemed necessary, prudent or helpful in the execution of this Ordinance.

D. Department (County Owned Assemblies).

1. The Department shall install or cause to be installed the appropriate backflow prevention assembly for the hazard presented by each facility.

2. The Department shall perform or cause to be performed all testing, repairs, maintenance and overhauls of County owned backflow prevention assemblies as required by this Ordinance.

3. The Department shall maintain all records and other relevant information on each County owned backflow prevention assembly.

E. Certified Cross-Connection Control Survey Inspectors and Engineers.

1. Certified inspectors and engineers shall ensure that AWWA guidelines and standards are utilized in their preparation of any facility's cross-connection survey report and that the information provided in any such report is reliable and accurate.

2. Certified inspectors and engineers shall submit any and all information as requested or directed by the Department.

3. Certified inspectors and engineers shall maintain copies of all cross-connection survey reports, blueprints, drawings, reports, inspections and any related correspondence or documentation for a minimum of ten (10) years.

4. Failure to provide accurate information in a timely manner as prescribed in this Ordinance shall be grounds for termination of any County contracts for service provided in accordance with this Ordinance.

F. Certified Backflow Prevention Technicians.

1. Certified technicians shall ensure that all tests, repairs and overhauls completed on any backflow prevention assembly protecting the County's water system are performed in compliance with manufacturer's recommendations, AWWA guidelines and standards, and this Ordinance.

2. Certified technicians shall submit to the Department all information relating to tests, repairs and overhauls on any backflow prevention assembly protecting the County's Public Water System as requested by the Department.

3. Certified technicians shall ensure that all information submitted to the Department is reliable and accurate.

4. Certified technicians shall maintain copies of all documentation relating in any way to tests, test results, repairs, overhauls on backflow prevention assemblies protecting the County Public Water System and any related correspondence or documentation for a minimum of ten (10) years.

5. Certified technicians shall only perform those activities for which their certification is valid and approved as outlined in this Ordinance. Reports submitted by non-certified or non-approved personnel shall not be accepted by the Department.

**SECTION SEVEN: BACKFLOW PREVENTION SYSTEMS.**

A. Approved Backflow Prevention Assemblies.

An approved backflow prevention assembly under this Ordinance is one that meets those standards set forth by the American Water Works Association (AWWA), the American Society of Sanitary Engineers (ASSE) and the Foundation for Cross-Connection Control and Hydraulic Research (FCCC), and is published as approved in the FCCC's List of Approved Backflow Prevention Assemblies. For assemblies owned by the County, the County reserves the right to limit the number of model(s) of approved assemblies for purposes of standardization and conformity to system conditions. Approved assemblies shall have the following features.

1. Shall be testable in line.
2. Shall be repairable in line.
3. Shall have approved shut-off valves located at each end of the backflow preventer.
4. Shall be supplied with ammonia resistant silicone disc's or other material having the same ammonia resistant properties and approved by the Department.
5. Shall have:
  - (a) Resilient seated (wedge), full-flow shut-off valves (or resilient seated, full-flow ball valves on sizes two (2) inches or smaller that shall be marked with:
    - (1) The manufacturer's name or symbol;
    - (2) Nominal size of valve;
    - (3) Model number;
    - (4) Working pressure.
  - (b) Resilient seated testcocks with:
    - (1) An operating stem, which must indicate if the testcock is open or closed;
    - (2) The operating stem on a ball valve type of testcock must be blow-out proof;
    - (3) The materials specified as bronze or approved equal.
6. The assembly (itself) shall contain the following minimum markings:
  - (a) The manufacturer's name or symbol;
  - (b) The type of assembly;
  - (c) Assembly size;
  - (d) Assembly model number;
  - (e) Assembly serial number;
  - (f) Rated working water pressure;
  - (g) Direction of flow.
7. No backflow prevention assembly shall be installed under this Ordinance unless spare parts are represented by the manufacturer to be available for a minimum period of seven (7) years from date of installation.

8. Whenever a backflow prevention assembly is tested, repaired or overhauled by a certified backflow prevention assembly technician, the assembly shall be "resealed" following such service to identify the technician.

B. Hazard Classifications.

Unless otherwise specified by this Ordinance, the Department shall use the American Water Works Association (AWWA) standards and guidelines in determining all classifications of hazards (whether actual or potential). Single family facilities shall be evaluated on a case-by-case basis. To the extent such residential facilities do not have auxiliary water sources or other types of systems or operations on-site which would classify the system as hazardous, a backflow prevention assembly shall not be required. Multifamily facilities with a single service connection or individual service connections having an auxiliary water or other types of systems or operations on-site that would classify the system as hazardous shall have an RPZ assembly installed as required by this Ordinance.

**SECTION EIGHT: BACKFLOW PREVENTION SYSTEM DESIGN.**

A. All Facilities.

1. The design shall be consistent with the standards and specifications found in the Collier County Utility Standards and Procedures Ordinance, Ordinance No. 97-17, any amendments or successors thereto, and the Department's operational and administrative procedures.

2. The design shall utilize AWWA standards and guidelines and FCCC approved backflow prevention assemblies (latest edition) unless otherwise specified by this Ordinance or the Department's administrative and operational procedures.

3. Backflow prevention assemblies shall be designed as part of the County's service connection, unless otherwise approved by the Department.

4. The facility owner shall be responsible for determining if the facility's system requires an uninterrupted supply of water that would be adversely affected by routine maintenance or other activities involving the backflow prevention assembly. The facility owner shall be responsible for installing or requesting a parallel backflow prevention assembly. In such instances, two (2) approved backflow prevention assemblies of the same manufacturer, size and model numbers shall be installed.

B. Existing Facilities Only.

1. Residential (Single Family). If an actual hazard as defined in this Ordinance poses a threat to the County Public Water System, an approved backflow prevention assembly shall be installed.

2. Other Facilities. These facilities include, but are not limited to commercial, industrial, and multi-family residential facilities. Where actual or potential hazards are identified, an approved backflow prevention assembly shall be installed. In some instances, it may be difficult or impossible to accurately determine such a facility's cross-connection status because plumbing plans of the facility's potable water system are nonexistent, unreliable or unobtainable. In instances where a cross-connection survey is not feasible, an air gap separation or reduced pressure device shall be installed based upon

the degree of hazard.

C. Installation Requirements.

1. All installations shall be consistent with the Department's administrative and operational procedures.

a. All approved backflow prevention assemblies for commercial, industrial and multi-family facilities shall be installed above final finished grade, unless otherwise approved by the Department.

b. Residential double check Backflow assemblies may be installed below grade in a enclosure specified or acceptable to the Department.

c. Residential Reduced Pressure assemblies shall be installed above final finished grade.

3. Backflow prevention assemblies shall not be installed above final finished grade in any type of vault, unless such vault is constructed to allow at least thirty percent (30%) of its sidewalls to be open or ventilated at the grade level. These openings or vents shall be unobstructed and of such size to permit any vented water to freely pass through the openings to the outside.

4. Backflow prevention assemblies shall not be installed in any position other than horizontal, unless the assembly has received approval for such installation by the assembly's manufacturer and the FCCC.

5. Backflow prevention assemblies shall be installed in outside locations as part of the Department's service connection and shall be protected from possible damage caused by normal traffic.

6. All backflow prevention assemblies shall be a minimum of twelve (12) inches above final finished grade (or pad) to a maximum of thirty (30) inches, as measured from the lowest point of the assembly; and a minimum side distance of three (3) feet from any wall, fixed aperture or landscaping.

7. All backflow prevention assembly installations shall be preceded by a wye strainer (5/8" to 2") or top access strainer (2½" to 10") and appropriate shut-off valve to facilitate cleaning and inspection of the strainer. All assemblies and strainers serving fire protection systems shall be approved for such service. In addition, all assemblies shall be supplied with ammonia resistant silicone discs or a Department approved equal.

8. Installers of backflow prevention assemblies may test and certify the backflow prevention assembly they have installed. However, all such tests and certification reports shall be completed only by a technician with the appropriate certification from the County's approved list.

**SECTION NINE: SERVICE AND REPORTING.**

A. Testing Frequency Schedules.

1. All backflow prevention assemblies shall:

(a) Be tested at least once every year, unless otherwise specified by the Florida Department of Environmental Protection;

(b) Be tested (and resealed) only by a certified backflow prevention device technician;

(c) Be tested utilizing procedures approved by the AWWA or its equivalent;

(d) Be tested with test equipment approved by the AWWA or its equivalent.

2. The Department may require a more frequent test schedule for assemblies serving facilities classified in accordance with this Ordinance as high hazard or that frequently fail regularly scheduled tests, as necessary to protect the public health and safety.

B. Overhaul Schedules.

1. All backflow prevention assemblies shall:

(a) Be overhauled as necessary or as recommended by the manufacturer, unless otherwise specified by the Department of Environmental Protection;

(b) Overhauled only by a certified backflow prevention assembly technician;

(c) Be overhauled using acceptable procedures as recommended by the assembly's manufacturer.

C. Repairs and Replacements.

1. Backflow Prevention Assemblies.

(a) Backflow prevention assemblies that repeatedly fail a required test shall be reported to the Department immediately and before any repairs are undertaken. Required repairs shall be performed by a certified technician as outlined by this Ordinance.

(b) Any assembly that is unable to be repaired or overhauled (scheduled or nonscheduled) shall be replaced immediately. At the completion of the repairs or replacement, the assembly shall be tested by a certified technician as outlined by this Ordinance.

2. Until such repairs or replacements are completed, the service connection shall be deactivated, if deemed necessary by the Department, to protect the public health, safety and welfare.

D. Testing Equipment and Methods.

1. Test Equipment.

Certified backflow prevention assembly technicians shall test such assemblies using that equipment as recommended by the assembly's manufacturer and approved by the Department.

2. Test Methods.

Only AWWA and FCCC methods shall be used when testing backflow prevention assemblies.

3. Certified backflow prevention assembly technicians shall have their testing instruments certified at least once every year for accuracy, or as often as the equipment

manufacturer recommends, whichever is more frequent. The technician shall forward a copy of the instrument's calibration report to the Department. The Department shall not accept testing reports prepared by technicians if such annual calibration reports are not received by the Department. Calibration reports shall only be accepted from sources approved by the Department. The Department shall develop procedures to approve testing sources based on manufacturing and industry standards.

E. Reporting.

Facility owners are directly responsible for all reports and reporting procedures regarding privately owned backflow assemblies protecting the County's water system. The facility owner may designate an agent to act on his behalf, but in no way does such action alleviate the facility owner's responsibility.

1. Reporting Scheduled Tests And Overhauls (Privately Owned Assemblies).

Reports for initial certification tests, regular annual tests and overhauls of a facility's privately owned backflow assembly must be completed by a certified technician as required by this Ordinance. Such reports shall be forwarded to the Department by the facility owner on the Department's approved forms. It shall be the responsibility of the facility owner to mail or deliver the completed reports to the Department as outlined in this Ordinance and the Department's administrative and operational procedures.

2. Reporting Of Nonscheduled Repairs or Replacements (Privately Owned Assemblies).

Any backflow prevention assembly which has been damaged, is discharging abnormally or fails any test, shall be reported immediately by the facility owner as follows:

Step 1: Notify the Department. If the Department's offices are closed, notify the after-hours on-call personnel.

Step 2: Contact a certified backflow prevention assembly technician from the Department's approved list for immediate repairs.

3. Any time a replacement is required for a privately owned assembly, such new assembly shall comply with all sections of this Ordinance.

F. Cross-Connection Survey Reports.

1. New Facilities.

The owner of a new facility shall submit a cross-connection survey report for the facility to the Department prior to occupancy and service connection activation. The report shall be submitted for the facility using the Department's approved forms. Survey reports shall include the survey inspector's or engineer's recommended backflow prevention assembly for the degree of hazard created by the facility. Survey reports for other than single family residences shall be completed by a certified cross-connection control survey inspector or engineer and shall contain that inspector's name and certification number on each page or the engineer's seal and number. Any such reports submitted to the Department without this information shall be deemed unacceptable and



shall not be reviewed. For single family residences, the survey report may be filled out by the facility owner using the Department's approved self-evaluation forms.

2. Existing Facilities.

The Department shall send notification to the owners of existing facilities where cross-connections are suspected. Facility owners shall, upon notification and within 90 days submit a cross-connection survey report for the facility to the Department. The cross-connection survey report shall have been completed by a certified cross-connection control survey inspector from the Department's approved list or an engineer and shall contain the inspector's name and certification number or engineer's seal on each page. Any survey report submitted to the Department for review without this information shall be deemed unacceptable and shall not be reviewed. For single family residences, the survey report may be filled out by the owner using the Department's approved self-evaluation forms.

3. Reclaimed Water Connections

All properties served by reclaimed water shall be surveyed at intervals, acceptable to the Department of Environmental Protection, but no less than every three years as to changes, additions or deletions in the customer plumbing system. All property surveys found to have the potential to create a cross-connection shall undergo further review up to and including site visits by the County to investigate potential hazards.

4. Survey Report Review and Approval.

After the Department has received and reviewed the cross-connection survey report for a proposed facility or use, the Department may take the following action:

- (a) The Department may accept the cross-connection survey report as written.
- (b) The Department may reject the cross-connection survey report as written.
- (c) The Department may request additional information before accepting or rejecting the report.
- (d) The Department may require a meeting with the facility owner's designated agent, certified cross-connection control survey inspector, engineer or all such entities or individuals involved before acting upon the Report as submitted.

4. Department Acceptance of Cross-Connection Survey Report.

Upon acceptance and approval of the cross-connection survey report, the Department shall issue a notice of acceptance. Once a backflow prevention assembly has been approved by the Department, no changes or alterations shall be made without the approval of the Department.

5. Final Approval of Backflow Prevention Assemblies (Privately Owned).

After a facility's backflow prevention assembly has been initially tested, certified and approved, the facility owner shall notify the Department that the new facility is ready for final inspection. The Department or its agent shall make a site inspection of

the new facility. Until the facility's backflow prevention assembly passes this final inspection, the service connection shall not be activated.

6. Testing and Overhaul Schedule (Privately Owned Assemblies).

Within thirty (30) days after final approval has been issued for a new facility's backflow prevention assembly, the Department shall send a letter to the owner outlining the testing and overhaul schedule. This letter shall list each component of the facility's cross-connection control system and how frequently each mechanism including the backflow prevention assembly shall be tested and overhauled (where applicable) and testing results and completion of overhauls shall be reported to the Department.

SECTION TEN: TECHNICAL IMPLEMENTATION.

In order to provide protection to the County's Public Water System from contamination and a high level of customer service and program quality at a reasonable and economical cost to the customers or consumers of the Collier County Water-Sewer District and Goodland Water District, all backflow prevention assemblies installed for the purposes of complying with this Ordinance shall be owned by the County. All facility owners that also own existing backflow prevention assemblies, that are subject to this Ordinance, may dedicate and convey those assemblies to the County for ownership and maintenance within 120 days from adoption of this Ordinance. Any assemblies not dedicated and conveyed to the County within that 120 day period shall remain in private ownership unless approved by the County. In cases where ownership of a backflow prevention assembly remains with the facility owner, the facility owner shall be responsible for complying with all maintenance and other requirements of this Ordinance. The technical and administrative requirements of this Ordinance shall be implemented as follows.

A. Program Administration.

It shall be the responsibility of the Department to administer, coordinate, monitor and track the technical implementation and ongoing requirements of this Ordinance for compliance.

B. New Installations.

1. Backflow prevention assemblies for 5/8" through 2" meters shall, if identified as necessary at the time of service application, be installed by the Department or the County's contract agent as part of and at the time of the installation of the County's service connection.

2. Backflow prevention assemblies for meters greater than 2" size shall be installed as part of the service connection for new construction by a plumbing or underground contractor retained by the facility owner. All such backflow prevention assemblies shall be conveyed to the County for ownership in accordance with the Collier County Utility Standards and Procedures Ordinance, Ordinance No. 97-17, any amendments or successors thereto, and the Department's administrative and operational procedures.

C. Retrofits.

1. Backflow prevention assemblies where the meter is between 5/8" through 2" shall be owned by the County and installed by the Department or the County's contract agent as a part of the Department's meter change out program or when the degree of hazard so warrants, the Department's maintenance staff or County's contract agent.

2. Backflow prevention assemblies where the meter is greater than 2" shall be owned by the County and installed by the Department or the County's contract agent.

D. Repairs.

1. Repairs of backflow prevention assemblies where the meter is 5/8" through 2" shall be performed by the Department or the County's contract agent.

2. Repairs of backflow prevention assemblies where the meter is greater than 2" shall be performed by the Department or the County's contract agent.

E. Replacements.

Replacements of backflow prevention assemblies shall be performed by the Department or the County's contract agent.

F. Testing.

1. County Owned Assemblies.

The Department or the County's contract agent shall perform all annual and miscellaneous testing on all County owned backflow assemblies. This subsection of this Ordinance does not apply to the assembly's initial certification when installed by a private sector contractor for a facility owner.

2. Privately Owned Assemblies.

All testing of privately owned assemblies shall be performed by an independent certified backflow assembly technician as outlined within this Ordinance and meeting all legal, regulatory and code requirements for the service classification.

**SECTION ELEVEN: PROGRAM FUNDING.**

A. New Installations.

Within 120 days from the adoption of this Ordinance, the County shall adopt by ordinance a fee, charge or rate to cover the County's anticipated cost to provide for Department services under this Ordinance. New customers of the Collier County Water-Sewer District and Goodland Water District, i.e., facility owners, shall be responsible for payment of this fee, charge or rate, if applicable, at the time and in conjunction with the payment of applicable impact and meter tapping fees or within 30 days after service is rendered.

B. Retrofits (Existing).

All active service connections that have existing hazards as of 120 days from the adoption of this Ordinance shall be considered existing retrofits for purposes of program funding under this Ordinance. The County's retrofit program for existing service connections shall be funded through existing and future water user fees.

C. Retrofits (New).

County service connections requiring a backflow prevention assembly that becomes active or create a new hazard more than 120 days after the adoption of this Ordinance shall be considered new retrofits for purposes of program funding under this Ordinance. The County shall establish on an annual basis a charge to cover the cost of this category of retrofits based on a competitive bid process or the County's cost. Customers, i.e., facility owners, in this category shall be assessed this charge to cover the County's installation costs.

D. Repairs.

The County's repair and maintenance program on all County owned backflow prevention assemblies shall be funded through existing and future water user fees.

E. Replacement.

The County's backflow prevention assembly replacement program for assemblies owned by the County shall be funded through existing and future water user fees.

F. Testing.

The County's annual and miscellaneous testing program on County owned backflow prevention assemblies shall be funded through existing and future water user fees.

SECTION TWELVE: TERMINATION OF SERVICE.

A. Any facility with a privately owned backflow prevention assembly receiving water service from the County's Public Water system that fails to perform the required testing or make required repairs to the backflow assemblies as directed by this Ordinance, the Department or a certified backflow assembly technician, shall be subject to termination of service. Such termination may continue until all violations of this Ordinance are corrected.

B. Any facility with a County owned and maintained backflow prevention assembly shall not be subject to this provision as the Department shall be responsible for the testing and maintenance of the assembly.

**SECTION THIRTEEN: PENALTIES.**

Any person who violates any provision of this Ordinance, or amendments thereto, shall be subject to the penalties provided in Section 125.69, Florida Statutes. In addition, the County may bring suit for damages for any violation of this Ordinance and amendments thereto, and to restrain, enjoin or otherwise prevent a violation of or mandate compliance with this Ordinance and amendments thereto.

**SECTION FOURTEEN: COLLECTION OF FEES, CHARGES OR RATES.**

The County or its agent shall be responsible for collecting any fees, charges or rates established by the Board of County Commissioners connected with the establishment and ongoing maintenance of the cross-connection control program authorized by this Ordinance.

**SECTION FIFTEEN: CONFLICT AND SEVERABILITY.**

The provisions of this Ordinance shall be liberally construed to effectively carry out its purposes in the interest of public health, safety, welfare, and convenience. If any section, phrase, sentence or portion of this Ordinance is for any reason held invalid or unconstitutional by any court of competent jurisdiction, such portion shall be deemed a separate, distinct, and independent provision, and such holding shall not affect the validity of the remaining portions of this Ordinance.

**SECTION SIXTEEN: INCLUSION IN THE CODE OF LAWS AND ORDINANCES.**

The provisions of this Ordinance shall become and be made a part of the Code of Laws and Ordinances of Collier County, Florida. The sections of the Ordinance may be renumbered or re-lettered to accomplish such, and the word "ordinance" may be changed to "section", "article", or any other appropriate word.

**SECTION SEVENTEEN: EFFECTIVE DATE.**

This Ordinance shall become effective upon filing with the Department of State and adoption of an ordinance setting forth the rate, fee or charge for Department services in connection with new installations and the filing of that ordinance with the Department of State.

PASSED AND DULY ADOPTED by the Board of County Commissioners of Collier County, Florida, this 29 day of July, 1997.

DATED:  
ATTEST:  
DWIGHT E. BROCK, Clerk

BOARD OF COUNTY COMMISSIONERS OF  
COLLIER COUNTY, FLORIDA

*[Signature]*  
D. C.

By: *[Signature]*  
Timothy L. Hancock, AICP Chairman

Approved as to form and  
legal sufficiency:  
*[Signature]*  
David C. Weigel  
County Attorney

This ordinance filed with the  
Secretary of State's Office the  
1st day of August, 1997  
and acknowledgement of that  
filing received this 1st day  
of August, 1997  
By: *[Signature]*  
Deputy Clerk

STATE OF FLORIDA)

COUNTY OF COLLIER)

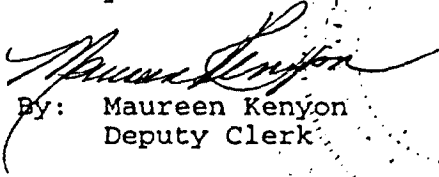
I, DWIGHT E. BROCK, Clerk of Courts in and for the Twentieth Judicial Circuit, Collier County, Florida, do hereby certify that the foregoing is a true copy of:

ORDINANCE NO. 97-33

Which was adopted by the Board of County Commissioners on the 29th day of July, 1997, during Regular Session.

WITNESS my hand and the official seal of the Board of County Commissioners of Collier County, Florida, this 30th day of July, 1997.

DWIGHT E. BROCK  
Clerk of Courts and Clerk  
Ex-officio to Board of  
County Commissioners

  
By: Maureen Kenyon  
Deputy Clerk

