CHAPTER 3 – STANDARDS AND PROCEDURES FOR WATER AND WASTEWATER COLLECTIONS

Sec. 3.01 General Construction and Connection Procedures

(Amended effective January 7, 2008)

(a) Any person desiring to make a connection to or receive service from either the water distribution or wastewater collection system serving the District must first obtain a permit from the District. A permit for water service or sewer service shall not be issued until a completed application form has been submitted to the District and the appropriate fee has been paid to the District. A person shall not maintain a service connection with the District freshwater distribution system unless the person has entered into a **Water Service Agreement** with the District. A person shall not maintain a service connection with the District sanitary sewer system unless the person has entered into a **Sanitary Sewer Service Agreement** with the District. A person shall not maintain a service connection with the District's water and/or sewer system unless the person has entered into a **Utility Line Easement** with the District. Any person applying for service shall comply with the applicable requirements of Chapter 2 of these rules.

(b) The person proposing to actually make a connection shall be responsible for determining the location of all existing utilities and services in the work area before making any connection and that person shall also be responsible for the immediate repair of any damage to existing utilities, services and facilities that may result from his work. The utilities, facilities and services to which this provision applies include, but are not limited to, electric lines, boxes and transformers; television cable facilities; water lines; wastewater lines; telephone facilities; curbs and concrete flat work; and irrigation systems. Information on the location of most of the utilities, services and facilities can be obtained from Texas 811 by dialing 811 or going to the website at texas811.org.

(c) **All connections (taps) to the water distribution system shall be made by the District.** After a connection is made to the wastewater collection system serving the District pursuant to permission granted by the District representative, and before the connecting line and connections are covered or enclosed with dirt or any other material, a District representative shall inspect the same to determine whether or not they have been properly installed in accordance with the requirements of this Chapter 3, the connection permit and the District's **"Procedures for Field Connections to Sewer Collection System, "** respectively. The District representative shall also determine whether the bedding material to be used to cover or enclose the connecting line and connections are suitable under the standards required by this Chapter 3 and the connection permit to ensure the connecting line will operate and function properly and remain functional and operational after it is placed in use, under normal and usual operating conditions. The person to whom the permit is issued shall be responsible for covering or enclosing the connecting line and connections with proper materials authorized and approved by the District representative.

(d) The person making a tap or installing a service line shall bore under the paved streets unless prior approval to cut streets has been granted by a District representative. In such case, the person shall backfill cuts he makes in paved streets. He shall fill the cuts with

District approved sand, road base and cement materials and compact the same to standard, acceptable densities as established by the Smith County Road & Bridge Department. The District will **not** be responsible for applying the actual paving material on top of the road base material.

(e) All water and wastewater connection lines and materials, except water meters, shall be furnished by the party installing the lines. **Water meters shall be furnished by the District at the expense of the customer.**

Sec. 3.02 Standards Governing Water Service Lines and Connections

(a) These rules govern the installation of all water service connections with the water system serving the District. All taps and service connections with the District freshwater distribution system shall be constructed out of materials and installed in the manner required by the then effective **"Procedures for Field Connections to Water System"** approved by the District.

(b) As used in this section 3.02, "service line" means the water service pipe from the foundation of the residential or commercial building to the water service stub or water main owned by the District.

(c) Except as may be authorized pursuant to section 2.05 of these rules, only one service line connection to the District's water system is permitted for each single- family dwelling and each single- family dwelling unit shall have one water meter through which all water to the unit shall flow and be metered.

(d) The following requirements apply to water connection facilities:

(1) Water pipe and fittings shall be of brass, copper, cast iron, galvanized malleable iron, galvanized wrought iron, galvanized steel, or other approved materials. Asbestos-cement, FE or PVC water pipe manufactured to recognized standards may be used for cold water distribution systems outside a building.
(2) Cast iron fittings up to and including two (2) inches in size shall be galvanized.
(3) All malleable iron water fittings shall be galvanized.
(4) Piping and tubing which has previously been used for any purpose other than for potable water systems shall **not** be used.
(5) Valves up to and including two (2) inches in size shall be of brass or other approved material. Sizes over two (2) inches may have cast iron or brass bodies. Each gate valve shall be a full-way type with working parts of non-corrosive material.
(6) A full-way gate valve controlling all outlets shall be installed on the discharge side of each water meter.
(7) Water service lines or any underground water pipes **shall not** be run or laid in the same trench with non-metallic sewer or drainage piping, except as provided below. Water service lines and wastewater service

lines shall be **not less than nine (9) feet apart** horizontally and shall be separated by undisturbed or compacted earth.

(8) The water service line may be placed in the same trench with the wastewater service line provided all three of the following conditions are met:

a) The bottom of the water service line, at all points, shall be at least twelve (12) inches above the top of the wastewater service line.

b) The water service line shall be placed on a solid shelf excavated at one side of the common trench and the two lines shall be separated by a minimum of eighteen (18) inches.

c) The water service line shall be installed with water tight joints tested to a minimum of 150 psi.

(9) Water service lines shall be bedded in washed sand to provide six (6) inches of cushion below the line. The water service line shall be bedded properly in the sand before the District inspection is requested and the sand for the cover shall be on site at that time. The trench bottom and walls shall be cleared of all protruding rocks which could damage the pipe before the sand bedding is placed. Washed sand shall be filled to the same elevation as the top of the adjacent curb and shall be compacted to a Proctor density of 90%. No rocks or other material over six (6) inches in diameter shall be used for backfill over the sand.

(e) **A water meter** and a District approved meter box shall be installed for each water connection at the location specified by the District representative. If a water box subsides or tilts more than on (1) inch within one year after it is installed, the person or firm who installed it shall be obligated to raise or straighten the meter box to the proper position. The following materials shall be used for the installation of all water meters and meter boxes in the District:

(1) U-Brach James Jones Model J-1S7S or approved equal.
(2) Flat head angle- stop – James Jones Model J-1526 or approved equal.
(3) PE heavy wall service- ASTM 2737 line or approved equal.
(4) Concrete meter box with metal lid or poly material box with a metal lid that the District has approved.
(5) Drain tile and metal lid to cover owner's cut-off valve.
(6) 6 ½" x ¾" brass meter nipple – James Jones J-130 or approved equal.

The above list is a typical service list to connect either 5/8" or ¾" meters. Installation of larger meters shall use the same quality materials as above with appropriate increases in size.

(f) Potable water supply piping, water discharge outlets, backflow prevention devices, or similar equipment shall not be located so as to make possible submergence of such equipment in any contaminated or polluted liquid or substance.

(g) Lawn sprinkling systems shall be equipped with an approved backflow prevention assembly installed on the discharge side at the point of delivery to the sprinkler system on the service line.

(h) No private water supply shall be interconnected with the public water supply.

(i) Swimming pool makeup water shall be protected by means of an approved backflow prevention assembly or an adequate air gap.

(j) No water supply system or portion thereof shall be covered or concealed until it first has been tested, inspected and approved by District representatives.

Sec. 3.03 Standards Governing Wastewater Service Lines and Private Lift Stations

(Amended effective July 2, 2015)

(a) These rules govern the installation of all wastewater connections with the wastewater system serving the District. **Application for Sanitary Sewer Service** must be filed and the connection fee paid in accordance with Sec. 3.06 (Connection Permits) prior to construction of the service line. Construction must not begin until authorized by the District and the required form is completed.

(b) As used in this Section 3.03, "service line" means the wastewater line from the foundation of the residential or commercial building to the wastewater collection line owned by the District.

(c) Only one service line connection to the District's wastewater collection system is permitted for each residential or commercial building.

(d) Only the following types of pipe and fitting materials are approved for constructing service lines. Pipe and fittings in each individual service line shall be of identical material.

Poly-vinyl Chloride PSM (PVC) pipe conforming to ASTM Specification D3034-SDR 35 installed in accordance with ASTM D2321 or Schedule 40. Recommended Schedule 40 PVC.

(e) A PVC Schedule 40 or SDR 35 4" x 6" increaser shall be used at the property line for all wastewater connections to increase the size of the service line to tie into the wastewater service stub.

(f) The service line shall be installed with water tight joints and tested to a minimum of 150 PSI without leaking.

(g) Minimum sizes of service lines, except as approved in writing by the District's engineer or operator, shall be as follows:

(1) Residential Building – Four (4) inches in diameter
(2) Commercial Building – Six (6) inches in diameter

(h) Minimum grades for service lines shall be as follows:

(1) 4- inch pipe – one-foot drop per hundred feet (1%)
(2) 6-inch pipe – six-inch drop per hundred feet (0.5%)
(3) 8-inch pipe – four-inch drop per hundred feet (0.33%)

(i) Maximum grades for service lines shall be as follows:

(1) 4-inch pipe – two and one-half feet drop per hundred feet (2.5%)
(2) 6-inch pipe – one and one-half feet drop per hundred feet (1.5%)
(3) 8-inch pipe – one-foot drop per hundred feet (1%)

(j) Service lines shall be constructed to true alignment and grade. Warped and/or sagging lines will not be permitted. Service lines shall be bedded in washed sand to provide six (6) inches of cushion below the line. The service line shall be bedded properly in the sand before the District inspection is requested and the sand for the cover shall be on the site at that time. The trench bottom and walls shall be cleared of all protruding rocks, which could damage the line before the sand bedding is placed. Washed sand shall be filled to the same elevation as the top of the adjacent curb and shall be compacted to a Proctor density of 90%. No rocks or other material over six (6) inches in diameter shall be used for backfill over sand.

(k) The District will allow private wastewater pumping stations under the following conditions:

(1) A private lift station may only be connected to the District wastewater treatment system by a **single** private discharge pressure line, connected to a District owned and maintained gravity flow wastewater collection line, a District owned wastewater collection system lift station or to a District owned wastewater collection system manhole;
(2) A private lift station discharge line may not be connected directly to the main wastewater treatment plant lift station;
(3) A private lift station **may not, under any circumstances,** share a common discharge pressure line with other private lift stations connected to the District owned collection system.
(4) The cost of installing, servicing and maintaining a private lift station and private discharge line connecting to the District owned collection system shall be borne by the property owner of record. Standard Tap Fees to the District collection system shall apply;
(5) The failure of the property owner of record to properly service, maintain and **repair in a timely manner** a private lift station and/or private lift station discharge line connected to the District wastewater collection system will result in the termination of all service until the cause of the failure of the lift station and/or private discharge line is corrected; and
(6) All maintenance responsibility by the property owner of record of a private lift station discharge line stops at the point of entry to the District owned collection system.

Sec. 3.04 Connection of Building Sewer Outlet to Service Lines

(a) The building tie-on connection will be made directly to the stub-out from the building plumbing at the foundation on all waste outlets. A clean-out shall be installed at the connection of the service line no farther than two (2) feet from the slab of the building.

(b) Water-tight adapters of a type compatible with the materials being joined will be used at the point of connection of the service line to the building plumbing. **No cement grout materials will be permitted.** See **"Procedures for Field Connections to the Sewer Collection System."**

(c) Existing "wye" and stack connections must be utilized for connection of the service line to the District's wastewater collection line unless an exception is permitted by a District representative or operator.

Sec. 3.05 Fittings and Clean-Outs

(a) No bends or turns at any point in the service line may be greater than 45 degrees.

(b) Each horizontal service line will be provided with a clean-out at its upper terminal and each such run of piping which is more than ninety (90) feet in length will be provided with a clean-out for each ninety (90) feet or fraction thereof, in the length of such piping.

(c) Each clean-out will be installed so that it opens in a direction opposite to the flow of the waste and except in the case of "wye" branch and end-of-the-line clean-outs, clean-outs will be installed vertically above the flow line of the pipe.

(d) Clean-outs will be made with air-tight mechanical plugs.

Sec. 3.06 Connection Permits

(a) Application for Sanitary Sewer Service must be filed prior to construction of the service line and any applicable fees as set forth in Schedule A should accompany this application **(Form #2006-2).** Application forms are available from the District office at 155 LaSalle Drive, the Emerald Bay Club business office or on the District's internet web page at www.emeraldbay-tx.gov. Construction must not begin until authorized by the District and the required form is completed.

(b) When the service line is completed, and prior to backfilling the pipe trench, the applicant for sewer service shall request an inspection of the installation. Requests for inspections shall be made to the District at least twenty-four (24) hours in advance of the inspection.

(c) The physical connection to the District's sewer main will be made by use of an adapter of a type compatible with materials being joined. The connection shall be water-tight.

No cement grout materials are permitted. See **"Procedures for Field Connections to Sewer Collection System."**

(d) No wastewater service line or connection, or portion thereof, shall be covered or concealed until it first has been tested, inspected and approved by District representatives. In the event that the pipe trench and connection are backfilled before inspection is completed, the District will have same uncovered for inspection at the property owner's expense.

(e) Backfilling of service line trench must be accomplished within twenty-four (24) hours of inspection and approval. No debris will be permitted in the trench.

(f) The District will not provide sewer service nor will a connection permit be granted until an inspection confirms that all requirements of this Chapter 3, Section 3.03 through Section 3.07 have been met.

Sec. 3.07 Prohibited Uses and Penalties

(a) No waste material, which is not biologically degradable, will be permitted to be discharged into the District's sewage facilities, including oil, grease, lubricants, corrosive chemicals, or mud and debris accumulated during service line installation.

(b) No septic tank leeching field will be permitted to be drained or discharged into the District's sanitary sewer facilities.

(c) No facial tissue, paper or cloth towels, cloths, napkins, sanitary napkins, tampons, or contraceptives shall be discharged into the District's sanitary sewer system.

(d) No downspouts, yard or street drains, or rain gutters will be permitted to be drained or discharged into the District's sanitary sewer facilities.

(e) No residential swimming pool or hot tub will be connected to the District's sanitary sewer for any reason.

(f) If a person intentionally or knowingly violates the requirements of this regulation, then the District may terminate the sanitary sewer service connection that is being used for a prohibited use.

Sec. 3.08 Replacement of Faulty Sanitary Sewer System Tap

If a tap to the District sanitary sewer system fails, then the tap shall be replaced by the District. The new tap shall be installed in the matter required by the then effective **"Procedures for Field Connections to Sewer Collection System"** approved by the District.

(a) If the original tap that was replaced was not inspected and approved by the District at the time it was installed, then the cost of the new tap shall be paid one-half by the District and one-half by the property owner. The property owner shall be invoiced by the District for one-half the cost of replacing the tap. The invoice shall be paid within thirty (30)

days after the invoice is sent. If the property owner fails to pay the invoice within thirty (30) days, then the District may terminate the sanitary sewer service connection.

(b) If the original tap that was replaced was inspected and approved by the District at the time it was installed, then the cost of the new tap shall be paid by the District.

(c) If any tap is damaged either through the fault of the property owner or the contractor of a property owner, the repair or replacement of the tap must be at the expense of the property owner.

Sec. 3.09 Private Sewage Collection Tanks

This regulation is adopted to ensure that rainwater or groundwater does not enter the District's sanitary sewer system through private sewage collection tanks. If a property owner is required to install a private collection tank and pump for a new sewer connection, or to replace a private collection tank and pump on an existing sewer connection, in order to pump the sewage into the District sewer main, then the property owner shall install a waterproof collection tank constructed and installed in the manner required by the then effective **"Procedures for Field Connections to Sewer Collection System"** approved by the District.

Sec. 3.10 Standards Governing Backflow Prevention and Cross-Connection Control

A Texas Commission on Environmental Quality (TCEQ) approved backflow prevention device will be required on **all** newly installed lawn sprinkling systems and on existing lawn sprinkling systems upon change of ownership, unless mandated at an earlier date by the TCEQ, that are connected to the District's potable water distribution system. Lawn sprinkling systems shall be equipped with an approved backflow prevention assembly installed on the discharge side of the point of delivery on the service line.

(a) Definitions, as used in this Section 3.10:

(1) *Administrative Authority* means the individual official, board department or agency established and authorized by a state, county, city, or other political subdivision created by law to administer and enforce the provisions of the cross-connection control program.

(2) *Air Gap* means 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"* shall be at least double the diameter of the supply pipe measured vertically above the over-flow rim of the vessel in no case less than one (1) inch.

(3) *Approved* as used herein reference to an air gap, means a double check valve assembly, a reduced pressure principle backflow prevention assembly or other backflow prevention assemblies or methods shall mean an approval by the administrative authority having jurisdiction.

(4) *Atmospheric Vacuum Breaker (AVB)* means an assembly containing an air inlet valve, a check seat and an air inlet port(s). The flow of water into the body causes the air inlet valve to close the air inlet port(s). When the flow of water stops, the air inlet valve falls and forms a check valve

against backsiphonage. At the same time, it opens the air inlet port(s) allows air to enter and satisfy the vacuum. A shut-off valve immediately upstream may be an integral part of the assembly, but the assembly shall not be subjected to operating pressure for more than twelve (12) hours in any twenty-four (24) hour period. An atmospheric vacuum breaker is designed to protect against non-health hazard (i.e., pollutant) or a health hazard (i.e., contaminant) under a backsiphonage condition only.

(5) *Backflow* means the undesirable flow of water or mixtures of water and other liquids, gases or other substances in the distribution pipes of the potable supply of water from any source or sources. See terms *backpressure (9) and backsiphonage (10).*

(6) *Backflow Prevention Assembly – Approved* means an assembly that has been investigated and approved by the administrative authority having jurisdiction. The approval of backflow prevention assemblies by the administrative authority shall be on the basis of a favorable laboratory and field evaluation report.

(7) *Backflow Prevention Assembly – Type* means any effective assembly used to prevent backflow into a potable water system. The type of assembly used shall be based on the existing or potential degree of hazard and backflow condition. The types of backflow prevention assemblies are:

a) Atmospheric Vacuum Breaker BackSiphonage Prevention Assembly (AVB), See (4).
b) Double Check Valve Backflow Prevent Assembly (DC), See (14).
c) Double Check-Detector Backflow Prevention Assembly (DCDA), See (15).
d) Pressure Vacuum Breaker Backsiphonage Prevention Assembly (PVB), See (18).
e) Reduced Pressure Principle Backflow Prevention Assembly (RP), See (20).
f) Reduced Pressure Principle-Detector Backflow Prevention Assembly (RPDA), See (21).
g) Spill-Resistant Pressure Vacuum Breaker Backsiphonage Prevention Assembly (SVB), See (24).

(8) *Backflow Prevention Assembly Tester- Certified* means a person who has proven his/her ability to the satisfaction of the administrative authority having jurisdiction. Each person who is certified to make field tests and make reports on backflow prevention assemblies shall be conversant with applicable laws, rules and regulations and have had experience in plumbing or pipe fitting or have other equivalent qualifications. Tester must have an approved certification by the Texas Commission on Environmental Quality (TCEQ).

(9) *Backpressure* means any elevation of pressure in the downstream piping system (by pump, elevation of piping, or steam and/or air pressure) above the supply pressure at the point of consideration which would cause, or tend to cause, a reversal of the normal direction of flow.

(10) *Backsiphonage* means a form a backflow due to a reduction in system pressure which causes a sub-atmospheric pressure to exist at a suite in the water system.

(11) *Check Valve – Approved* means a check valve that is drip-tight in the normal direction of flow when the inlet pressure is at least one (1) psi (pound per square inch) and the outlet pressure is zero.

(12) *Contamination* means an impairment of the quality of the water which creates an actual hazard to the public health through poisoning or through the spread of disease by sewage, industrial fluids, waster, or other causes.

(13) *Cross-Connection* means any unprotected actual or potential connection or structural arrangement between a public or a consumer's potable water system and any other source or system through which it is possible to introduce into any part of the potable system any used water, industrial fluid, gas, or substance other than the intended potable water with which the system is supplied. Bypass arrangements, jumper connections, removable sections, swivel or change-over devices and other temporary or permanent devices through which or because of which backflow can occur are considered to be cross-connections. A direct cross-connection shall mean a cross-connection which is subject to both backsiphonage and backpressure. An indirect cross-connection shall mean a cross-connection which is subject to backsiphonage only.

(14) *Double Check Valve Backflow Prevention Assembly (DC)* means an assembly composed of two independently acting approved check valves, including tightly closing resilient seated shut-off valves attached at each end of the assembly and fitted with properly located resilient seated test cocks. This assembly shall only be used to protect against a non-health hazard (i.e., pollutant).

(15) *Double Check-Detector Backflow Prevention Assembly (DCDA)* means a specially designed assembly composed of a line-size approved double check valve assembly with a bypass containing a specific water meter and an approved double check valve assembly. The meter shall register accurately for only very low rates of flow up to 3 gpm (gallons per minute) and shall show a registration for all rates of flow. This assembly shall only be used to protect against non-health hazard (i.e., pollutant). The DCDA is primarily used on fire sprinkler systems.

(16) *Hazard-Degree Of* means either a pollutant (non-health) or contamination (health) hazard and is derived from the evaluation of conditions within a system.

(17) *Pollution* means an impairment of the quality of the water to a degree which does not create a hazard to the public health but which does adversely and unreasonably affect the aesthetic qualities of such waters for domestic use.

(18) *Pressure Vacuum Breaker Backsiphonage Prevention Assembly (PVB)* means an assembly containing an independently operation internally loaded check valve and an independently operation loaded air inlet valve located on the discharge side of the check valve. The assembly is equipped with properly located resilient seated test cocks and tightly

closing resilient seated shut-off valves attached at each end of the assembly. This assembly is designed to protect against non-health hazard (i.e., pollutant) or a health hazard (i.e., contaminant) under a backsiphonage condition only.

(19) *Reclaimed Water* means water which as a result of treatment of wastewater, is suitable for a direct beneficial use or a controlled use that would not otherwise occur, and is not safe for human consumption.

(20) *Reduced Pressure Principle Backflow Prevention Assembly (RP)* means an assembly containing two independently acting approved check valves 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 resilient seated test cocks and tightly closing resilient seated shut-off valves at each end of the assembly. This assembly is designed to protect against a non-health (i.e., pollutant) or a health hazard (i.e., contaminant). This assembly shall not be used for backflow protection of sewage or reclaimed water.

(21) *Reduced Pressure Principle-Detector Backflow Prevention Assembly (RPDA)* means a specifically designed assembly composed of a line-size approved reduced pressure principle backflow prevention assembly with a bypass containing a specific water meter and an approved reduced pressure principle backflow prevention assembly. The meter shall register accurately for only very low rates of flow up to 3 gpm and shall show a registration for all rates of flow. This assembly shall be used to protect against a non-health hazard (i.e., pollutant) or a health hazard (i.e., contaminant). The RPDA is primarily used on fire sprinkler systems.

(22) *Sanitary Sewer* means the pipe that carries sewage.

(23) *Service Connection* means the terminal end of a service connection from the public potable water system (i.e., where the District may lose jurisdiction and sanitary control of the water is at its point of delivery to the consumer's water system). A water meter is installed at the end of the service connection. The service connection shall mean the downstream end of the water meter.

(24) *Spill-Resistant Pressure Vacuum Breaker Backsiphonage Prevention Assembly (SVB)* means an assembly containing an independently operating internally loaded check valve and independently operating loaded air inlet valve located on the discharge side of the check valve. The assembly is to be equipped with a properly located resilient seated test cock, a properly located bleed/vent valve and tightly closing resilient seated shut-off valves attached at each end of the assembly. This assembly is designed to protect against a non-health hazard (i.e., pollutant) or a health hazard (i.e., contaminant) under a backsiphonage condition only.

(25) *Water-Potable* means water from any source which has been investigated by the health agency having jurisdiction, and which has been approved for human consumption.

(26) *Water- Used* means any water supplied by the District to a customer's water system after it has passed through the service connection and is no longer under the control of the District.

(b) Backflow Prevention and Cross-Connection Policy

(1) No water service connection to any premise shall be installed or maintained by the District unless the water supply is protected as required by state law, the regulations of the TCEQ and this Section 3.10, know as the Cross-Connection Control Program (CCCP). Service of water to any premises shall be discontinued by the District if a backflow prevention assembly required by the CCCP is not installed, tested and maintained, if it is found that a backflow prevention assembly has been removed or bypassed, or if an unprotected cross-connection exists on the premises. Service will not be restored until such conditions or defects are corrected.

(2) The customer's system shall be open for inspection at all reasonable times to the authorized District representative to determine whether unprotected cross-connections or other structural or sanitary hazards, including violations of these regulations, exist. When such a condition becomes known, the District shall deny or immediately discontinue service to the premises by providing for a physical break in the service line until the customer has corrected the condition(s) in conformance with the CCCP.

(3) An approved backflow prevention assembly shall also be installed on each service line to a customer's water system at or near the property line or immediately inside the building being served. Lawn sprinkling systems shall be equipped with an approved backflow prevention assembly installed on the discharge side of the point of delivery on the service line.

(4) In the case of any premises where there is water or a substance that would be objectionable but not hazardous to health, if introduced into the public water system, an approved double check valve backflow prevention assembly shall be installed.

(5) In the case of any premises where there is any material dangerous to health which if handled in such a fashion as to create an actual or potential hazard to the public water system, there shall be an approved air gap or an approved reduced pressure principle backflow prevention assembly to protect the public water system.

(6) In the case of any premises where there are unprotected cross-connections, either actual or potential, the public water system shall be protected by an approved air gap or an approved reduced pressure principle backflow prevention assembly at the service connection.

(7) In the case of any premises where, because of security requirements or other prohibitions or restrictions, it is impossible or impractical to make a complete in-plant cross-connection survey, the public water system shall be protected against backflow from the premises by either an approved

air gap or an approved reduced pressure principle backflow prevention assembly on each service to the premises.

(8) Any backflow prevention assembly required herein shall be a make, model and size approved by the District. The term "approved backflow prevention assembly" shall mean as assembly that has been manufactured in full conformance with the standards established by the American Water Works Association entitled: AWWA/ANSI C-510-92 Standard for double check valve backflow prevention assemblies: AWWA/ANSI C511-92 Standard for reduced pressure principle backflow prevention assemblies. The AWWA standards and specifications, the Subchapter D: Section 290.44 of the Rules and Regulations for Public Water Systems, and an and all **"Procedures for Field Connections to Water System and Sewer System Collection System"** adopted by the District.

(9) It shall be the duty of the customer at any premises where backflow prevention assemblies are installed to have a field test performed by a certified Backflow Prevention Assembly Tester upon installation of such assemblies for non-health (i.e., pollutant) conditions. Testing for a health hazard (i.e., contaminant) in the assembly shall be conducted on installation and annually from the installation date.

(10) The District is authorized to make all necessary and reasonable rules and policies with respect to the enforcement of this resolution.