

**WATER AND SEWER UTILITIES
POLICY AND PROCEDURES**

The purpose of this draft policy is to set out in greater detail certain portions of the Water and Sewer Utilities Ordinance which are considered of importance in administering these aspects of the administration and operation of the water and wastewater (utility) service area. The coverage of this draft policy is fairly skeletal. It is expected that additional subjects relating to administration of the wastewater system can be added after that utility has been placed in operation.

Article 1. Annexation Policy

A. Procedure for Providing for Annexation of Property to be Served with Water and Sewer

 It shall be the policy of the Town of Dundee to extend the municipal limits of the Town to all property owners who are located outside of the corporate limits of the Town and within the Utility Service Area who desire water and sewer service. To obtain such utility service, the property owner/developer will enter into an agreement with the Town of Dundee to voluntarily annex to the municipal boundaries the property to be served from Town water and sewer lines at such time, if ever, such property becomes contiguous to property located within the municipal boundaries of the Town of Dundee. The annexation agreement shall be in recordable form, and shall contain the following information:

- 1) A complete legal description of the property to be annexed.
- 2) A certified copy of the deed to the site to establish ownership.
- 3) A statement to the effect that at such time that the property becomes contiguous to property located within the municipal limits of the Town, the owner of the property shall perform such necessary acts, execute such necessary documents, and comply with such necessary procedures as shall be required to voluntarily annex the property within the municipal limits of Dundee.

Article 2. Utility Extension Policy

 A. Procedures for requesting utility service to properties located within the Town's Utility Service Area but outside of the corporate limits (see Section 1.6 of Utility Ordinance).

Article. 2. Utility Extension Policy (Continued)

Extension of water and sewer service to properties lying outside of and non-contiguous to the corporate limits of the Town of Dundee shall be approved by the Town Council.

The City Manager or his designee, who shall be the Director of Public Works, shall approve the extension of utility service to properties located within the Town limits, as well as properties lying outside the Town limits where service is available. The following procedure shall apply to all applications for utility service to properties located outside the corporate limits of the Town:

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- 1) The owner of record of the property proposed to be served by the utility system must formally request, in writing, that the Town make utility service available to the site. To initiate the request, the owner shall contact the Director of Public Works and provide the following information:
 - a) A project location map and complete legal description of the property;

 - b) A certified copy of the deed to the site to establish ownership;

 - c) A detailed description of the proposed land use intended for the site;

 - d) An estimate of the daily water and wastewater demands of the subject property.

 - 2) For properties where service is not available, the required information shall be furnished to the Director of Public Works at least 30 days prior to the Council meeting at which the request for utility service is to be considered.

 - 3) The owner shall execute a "Petition for Utility Service" and submit it to the Director of Public Works in order to receive consideration for a request for utility service. The execution of the "Petition for Utility Service" obligates the property owner to construct the utility system in compliance with the following conditions:
 - a) All utility construction within the subject property shall be constructed in accordance with Section 1.6, titled, "Utility System Extensions", of the Town of Dundee Utilities Code. Additional policy and procedural details are given in Article 3, "Local Water and Sewer Systems".

 - b) All costs associated with extension of Town of Dundee utility

services to the subject property shall be made at no expense to the Town, except for the need for oversizing of certain utilities, as described below.

B. Responsibility for Costs of Utility Construction

1) In cases where a utility extension will benefit other property owners and/or developments, and is a utility system improvement listed in the then current schedule of the Town's 5-Year Utility Capital Improvements Plan, the Town may consider the following options in undertaking the utility extension:

a) If Capital Improvement Funds are not immediately available to the Town, the property owner/developer may prepay the entire cost of the extension. A Developer's Agreement between the Town and property owner/developer shall be executed, providing that the property owner will be reimbursed for the oversizing costs from other users connecting into such extension within a five year period, and/or from the property owner/developer's impact fees. Such reimbursement may be made up to 100 percent of the cost of oversizing the extension, or 100 percent of the total income from collected impact fees, whichever is the lesser.

a) The Town and the property owner/developer may enter into a Developer's Agreement whereby the Town, assuming capital improvement funds are then available, may pay the cost of the improvement above those funds received in the form of impact fees from the property owner/developer and other owners immediately benefitting from the line extension (optional). Prior to Project approval the owner/developer shall provide the Town with a letter of credit or other collateral acceptable to the Town that guarantees that the Town will be reimbursed with the remaining cost of the extension over a 5-year period, in equal annual payments.

b) In the event the property owner is the only potential user of the proposed utility extension, the owner shall initially pay 25% of the total impact fees in advance, based upon full development of the property, and such additional sums as are required to fully fund the improvement.

2) In the case where a proposed utility extension will not benefit other property owners, and/or developments and is not included in the then current 5-year Capital Improvement Plan, the property owner shall be responsible for all costs of the improvement.

C. Oversizing of Portions of Utility Systems

1) Where the Town elects to oversize any utility facility in accordance with the provisions of Section 54-10 of the Town of Dundee Utility Ordinance, the Town shall reimburse the property owner/developer for the documented cost differential directly attributable to such oversizing.

Determination of that portion of the extension cost paid by the Town shall be based upon a

C. Oversizing of Portions of Utility Systems (Continued)

comparative cost analysis prepared by the Department of Public Works based upon three (3) bids from qualified contractors, submitted to the Department of Public Works.

Article 3. Local Water and Sewer Systems

_____The requirements relating to construction of local water mains and sewers within new developments are enumerated in the following Sections. Prior to preparing construction plans, the property owner/developer, or their engineers shall contact the Public Works Department to determine the availability of water and sewer service to the proposed development area. Design and construction of utilities shall conform to the standards promulgated in the latest issues of Standards of American Society for Testing Materials and ASTM Specifications; American Water Works Association Specifications, and pertinent State and County regulations

A. Requirements for Approval of Local Water and Sewer Systems

- 1) After the local water and sewer lines and appurtenances are constructed in a public right-of-way or easement, the completed improvements shall be inspected and accepted by the Town for ownership and maintenance via a Formal Letter of Dedication. The parts of the water and sewer services that lie within private property are the responsibility of the developer/owner, who shall maintain and operate that portion of the utility system.
- 2) Wherever possible, new local water systems shall be looped to eliminate dead-end lines. In the event the water system is constructed in stages, and looping is not immediately available, easements and/or public right-of ways shall be provided by the developer or property owners to facilitate looping of the water lines at the earliest possible time. All new local water mains in shall have a minimum diameter of six (6) inches

B. Sewage Pumping and Lift Station Policy

_____The purpose of this policy is to encourage developers to plan the expansion of wastewater systems in an orderly manner, and to limit the number of sewage pumping stations that are proposed to be maintained by the Town.

- 1) Requirements: The following listed minimum requirements shall be met in order for the Town to give favorable consideration to accepting maintenance responsibility for a wastewater pumping station:_____

B. Sewage Pumping and Lift Station Policy (Continued)

- a) The pumping station must be accessible from a paved road, readily accessible to public utilities;
- b) The pumping station site and force main easements shall be dedicated to the Town;
- c) The pumps and motors utilized in the pumping station shall be of a manufacture, capacity, and specifications which meet the approval of the Department of Public Works;
- d) For non-residential developments, the proposed development must be capable of processing, at a minimum, an average wastewater flow of 35,000 gallons per day;
- e) Where the sizing of the pumping station, pumps, motors and force main is dependent upon the station serving future additional phases of development, the owner/developer shall provide adequate documentation of the estimated future flows and timing of the construction of the additional station capacity.
- f) In the event the above conditions cannot be met, the maintenance responsibility for the operation of the pumping station shall remain private.
- g) Whether privately or publicly maintained, the pumping rate of all pumping or lift stations shall be restricted to the peak design flow of the gravity system receiving the force main discharge.

C. Fire Flow and Fire Hydrant Requirements

All water distribution system extensions shall be designed to provide adequate fire flow to all new developments. Fire flow requirements shall be calculated in accordance with one of the three methods contained in AWWA Manual M31, titled, "Distribution System Requirements for Fire Protection" 1998, except that fire flow demands for one- and two-family dwellings shall be calculated in accordance with Table 1-4 of the same manual.

- 1) Hydrants: Hydrants shall be a minimum of six inches (6") in diameter unless otherwise directed. Hydrants located on large mains shall be eight inches (8") in diameter. Connection from a water main to a fire hydrant shall be the same diameter as the nominal inside diameter of the hydrant.

C. Fire Flow and Fire Hydrant Requirements (Continued)

- _____ 2) Hydrant Location: The spacing of hydrants shall be as follows:
- _____ a) In AL zoned areas (1.0 Units/Acre): A Maximum of 1,000 feet apart, as measured along an improved road, and a hydrant shall be within 500 feet from the center of any improved or recorded lot.
- _____ b) In RSF1 zoned areas (4.8 Units/Acre) and RSF2 (5.8 Units/Acre): A Maximum of 750 feet apart, as measured along an improved road, and a hydrant shall be within 500 feet from the center of any improved or recorded lot.
- _____ c) In CRTF zoned areas (9.0 Units/Acre) and RMF (12.0 Units/Acre), containing 3 stories or less: A Maximum of 500 feet apart, as measured along an improved road, and a hydrant shall be within 500 feet from the center of any improved or recorded lot.
- _____ d) In DRMH1 zoned areas (5.8 Units/Acre) and RMH2 (6.6 Units/Acre), containing 3 stories or less: A Maximum of 300 feet apart, as measured along an improved road, and a hydrant shall be within 500 feet from the center of any improved or recorded lot.
- _____ e) All other uses of property in other zoned areas of the Town, as listed in the Town of Dundee Land Development Code, including high rise or elevator type apartments: a maximum of 300 feet apart as measured along an improved road and conforming to the National Board of Fire Underwriters requirements for the structures involved

Article 4. Underground Disposal Systems _____

_____ Underground disposal systems requiring septic tanks shall not be utilized within the Town of Dundee Service Area unless it is not practicable or feasible to extend sanitary sewers to properties requiring sewer service. If such extension is not feasible, as determined by the Director of Public Works, the following policy shall govern:

A. Design Approval Required

_____ The design and construction of all underground disposal systems shall conform to the Town's Plumbing Code, and to the requirements of the State and County Health Departments regarding such construction, and shall be subject to the approval of the Director of Public Works.

Article 4. Underground Disposal Systems (Continued)

B. Test Requirements

Where the use of underground disposal systems is permitted on lot sizes approved by the Zoning Code and the County Health Department, the issuance of building permits shall be contingent upon completion of successful testing of the percolation capacity of the soil.

Article 5. Cross-Connection Control Plan

In accordance with the provisions of Chapter 62-555.360 of the Florida Administrative Code, this Cross-Connection Control Plan has been adopted to establish a routine cross-connection control program to detect and prevent cross connections that may create an imminent and substantial danger to public health. This program includes a written plan, given below, that is developed using accepted practices of the American Water Works Association (AWWA) guidelines as detailed in the following two AWWA Manuals: (1) M14 - Backflow Prevention and Cross-Connection Control and (2) Cross-connections and Backflow Prevention, 2nd Edition.

The purpose of this program is to protect the Town of Dundee's public potable water supply from the possibility of becoming polluted by isolating, at the point of the customer's water service connection to the Town's water system, such contaminants or pollutants that could backflow or back-siphon into the public potable water system; to eliminate actual or potential cross-connections between the Town's public potable water supply and other water sources of unsafe or unknown quality; and to provide for the maintenance of a continuing cross-connection control program.

A. Definitions

- 1) Air Gap: a physical separation of piping sufficient to prevent backflow between the free-flowing discharge end of the potable water supply system and any other water system. It is defined as a distance equal to twice the diameter of the supply side pipe diameter, but never less than one inch.
- 2) Approved Backflow Prevention Device: a device that has been manufactured in conformance with AWWA standards, titled, AWWA C510-89 - Standard for Double Check Valve Backflow Prevention Assembly, or AWWA C511-89 - Standard for Reduced Pressure Principle Backflow Prevention Assembly, and have met the laboratory and field performance specifications of the Foundation for Cross-Connection Control and Hydraulic Research of the University of Southern California (FCCHR). Final approval shall be evidenced by a certificate of approval issued by an approved testing laboratory certifying full compliance with the aforesaid AWWA standards and FCCHR specifications.

A. Definitions (Continued)

- 3) Atmospheric Vacuum Breaker: a device that prevents back-siphonage by creating an atmospheric vent when either a negative or sub-atmospheric pressure exists in a water supply system.
- 4) Backflow: reversal of water flow direction, whereby water or other liquids, under positive or reduced pressure, flows back into the distribution piping of a potable water supply system downstream from the customer's point of delivery.
- 5) Backflow Prevention Device (BFP): a device designed to prevent backflow or back-siphonage. These devices include: air gap, reduced pressure zone assembly (RPZ), double check valve assembly, pressure vacuum breaker, atmospheric vacuum breaker, hose bibb vacuum breaker, and residential dual check.
- 6) Back-siphonage: the flow of water or other liquids into the distribution piping of a potable water supply system from any source other than its intended source, caused by reduction of pressure in the potable water system. _____
- 7) Contamination: an impairment of the quality of potable water by any solid, liquid or gaseous compounds or mixtures to a degree that would cause imminent danger to public health or would create an unacceptable taste, odor, or color in potable water.
- 8) Cross-Connection: any physical arrangement in which a public water supply is directly or indirectly connected with any other water supply system, sewer, drain, conduit, pool, storage reservoir, plumbing fixture, or other device that contain or may contain contaminated or polluted water, sewage or other waste that may be capable of imparting contamination or pollution to the public water supply as a result of backflow or back-siphonage. The use of bypass arrangements, jumper connections, removable sections, swivel or changeable devices through which or because of which backflow or back-siphonage may occur are considered cross-connections and are unacceptable.
- 9) Customer or User: any person or entity using or receiving water from the Town's potable water supply system _____
- 10) Customer's or User's Water System: those parts of water system facilities located beyond the point of delivery that are used to convey water to the customer's point of use.

A. Definitions (Continued)

11) Detector Check Assembly: a double check valve in a main supply line with a smaller parallel detection line with a meter and an independently acting double check valve.

12) Double Check Valve Assembly: an assembly of two independently operating spring loaded check valves with tightly closing shutoff valve on each side of the check valves, together with test chocks for the testing of each check valve.

13) Hose Bibb Vacuum Breaker: a device that is permanently attached to a hose bibb and acts as an atmospheric vacuum breaker

14) Point of Delivery: the terminal end of service from the public potable water system at the meter installation that includes the backflow prevention device when such device is installed with the water meter. This is the point at which the customer/user assumes control over the water supply.

15) Potable Water: water from any source that had been approved for human consumption by the Town, County and State Health Agencies.

16) Reclaimed Water: wastewater that has received at least secondary treatment and basic disinfection for the purpose of reuse after discharging from a domestic wastewater treatment facility.

17) Reduced Pressure Zone Assembly (RPZ): An assembly consisting of two independently operated approved check valves with an automatically operating differential relief valve located between the check valves, with tightly closing shutoff valves on each side of the check valves, plus properly located test chocks for the testing of the check and relief valves.

18) Standard Plumbing Code: the Standard Plumbing Code published by the Southern Building Congress International, Inc.

19) Water Service Connection: the point in the customer's/user's water system beyond the sanitary control of the Town. It is usually considered the outlet end of the water meter before any unprotected branch.

B. Authority

The Federal Safe Drinking Water Act of 1974, and the Florida Safe Drinking Act (F.S. 403.850 et. seq.) establish that the Town of Dundee has the primary responsibility for preventing water from unapproved sources from entering the public potable water supply system. Chapters 62-555.360 and 62-610.470 (F.A.C.) further require the Town, as a purveyor of reclaimed water for irrigation purposes in public access areas, to establish an approved written cross-connection program.

C. Responsibilities of Town and Customers/Users

1) Director of Public Works:

The Director of Public Works is responsible for the protection of the public water supply distribution system from contamination or pollution from backflow or back-siphonage through water service connections. The Town will not allow any cross-connections in the public water system.

In new potable water installations, the Town will install, or will require to be installed as part of the service connection, an approved backflow prevention device. No potable water service connection will be installed on the premises of any customer unless the Town potable water system is protected as required by this Program.

On existing potable water service installations, the Town will perform inspections of the premises and take appropriate corrective action. Retrofit of residential customers will be accomplished as water meters are replaced. The highest priority will be given to those customers who also receive reclaimed water for irrigation purposes.

2) Customer/User:

The customer or user on the premises receiving water service is responsible for preventing contaminants or pollutants from entering the Town's public potable water system from the customer's/user's water system. The customer is responsible for protecting his private water system against actual or potential cross-connections, backflow, or back-siphonage as required by the Standard Plumbing Code and other applicable rules and regulations. The customer is responsible for following the provisions of this program and any applicable ordinance, rule and regulations, and further, is responsible for elimination of all cross-connection on the customer's/user's premises, if they now exist.

C. Responsibilities of Town and Customers/Users (Continued)

2) Customer/User: (Continued)

The water meter installation fee shall be adjusted to cover the cost of the installation of the backflow-prevention device. For a standard three-fourths-inch service line the fee shall be \$150.00; for larger line the resident will be charged \$750.00 impact fee and \$135.00 installation fee for all customers within the Town; for customers outside of Town the fee will be \$906.25 plus a \$135.00 installation fee; for larger line the resident will be charged the respective impact fee plus the respective installation fee according to the meter size.

D. Backflow Prevention Devices Criteria

1) The type of backflow prevention devices permitted for installation on water service connections will depend upon the degree of hazard that exists, as determined by the Public Works Department. The following devices will be approved for backflow prevention:

- 1) Air Gap
- 2) Atmospheric Vacuum Breaker
- 3) Detector Check Assembly
- 4) Double Check Valve assemble
- 5) Hose Bibb Vacuum Breaker
- 6) Reduced Pressure Zone Assembly (RPZ)
- 7) Residential Dual Check Assembly (Approved for residential applications and certain small commercial establishments only.

E. Procedures for Installation and Maintenance

1) New Installations

Residential:

- a) In new residential potable water installations, the Town will install as part of the service connection an appropriate approved backflow device. At a minimum, a residential double check valve assembly will be installed at the time the potable meter is set. Certain residential services may be fitted with testable backflow prevention devices, depending upon the degree of hazard that exists, as determined by the Director of Public Works.

E. Procedures for Installation and Maintenance (Continued)

Commercial:

- a) All service connections other than single family residential connections are considered commercial services.
- b) On new commercial potable water installations, the Town will install, or will require the contractor to install as part of the service connection, an appropriate approved backflow prevention device. The type of backflow prevention device installed will be determined by the Director of Public Works.
- c) Only Reduced Pressure Zone Assembly (RPZ) backflow prevention devices are approved for commercial customer's potable water service connections that are two (2) inches in diameter or larger. Commercial connections up to 2 inches may be fitted with an appropriate double check valve assembly (BFP) unless the Director of Public Works determines that the degree of hazard present requires the installation of an RPZ.

Approved RPZ devices are the following (or approved equal):

- < Watts 909 (3/4"-2", 4",6", 8" and 10")
- < Febco 825Y (3/4"-2") and Febco 825 (3"-10"),
- < Hersey FRP-11 (3/4"-2") and 6CM (3"-10")

Approved Double Check Valve Devices are the following (or approved equal):

- < Watts 709 (3/4"-2")
- < Beeco FDC (3/4"-2")
- < Febco (3/4"-2")

In cases where the Director of Public Works has determined that minimal hazard exists, commercial installations less than 1" in diameter may be fitted with residential double check valve assemblies as part of the service connection. However, this exception applies only to those establishments that do not employ any water use other than domestic use of potable water.

E. Procedures for Installation and Maintenance (Continued)

Fire Systems

All fire protection systems are required to utilize an RPZ assembly type BFP installed as part of the fire line master assembly. The contractor installing the latter assembly shall contact the Director of Public Work's office to obtain the exact assembly length and height above the required concrete slab. The Town will install the fire line master meter.

Approved Double Fire System Devices are the following (or approved equal):

- < Watts 909 (3/4"-2", 4", 6", 8" and 10")
- < Febco 825Y (3/4"-2") and Febco 825 (3"-10"),
- < Hersey FRP-11 (3/4"-2") and 6CM (3"-10")

2) Existing Service Connections

Existing service connection that do not conform to the requirements detailed above shall be retrofitted with appropriate devices where it is found such devices are lacking.

(a) Inspections

The Town shall perform inspections of residential water services utilizing reclaimed water at the time the reclaimed water service is activated, in order to insure that all backflow prevention devices are tested and in satisfactory working order. The Town will reinspect such residential services once each five (5) years to insure that the backflow prevention devices are tested and in satisfactory working order.

The Town shall perform inspections of commercial and all other non-residential water services at least once each year in order to insure that all backflow prevention devices are tested and in satisfactory working order.

All testing of and repairs to BFPs will be performed by a certified backflow technician

(b) Record Keeping

Maintenance personnel of the Public Works Department's office will keep computerized records of all installations, testing, repairs and replacements of BFP assemblies, including the name and certification number of the person conducting the test or repair, date, procedures performed, lists of approved backflow prevention devices, and all other pertinent information.

