

**Town of Dallas  
Agenda**

**August 27, 2024**

**6:30 PM**

**BOARD OF ALDERMEN-WORK SESSION**

**Hayley Beaty, Mayor**

**Jerry Cearley**

**Frank Milton**

**Sam Martin, Mayor Pro-Tem**

**Alan Cloninger**

**E. Hoyle Withers**

**ITEM SUBJECT**

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**1. Pledge of Allegiance to the Flag**

**2. Approval of Agenda with Additions or Deletions**

**3. New Business**

**A. Utility Extension Policy**

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**B. BackFlow Prevention and Cross Connection Policy**

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# TOWN OF DALLAS, NORTH CAROLINA

## REQUEST FOR BOARD ACTION

DESCRIPTION: Utility Extension Policy

AGENDA ITEM NO. 3A

MEETING DATE: 8/27/2024

### BACKGROUND INFORMATION:

An extension of water and sewer lines policy was adopted by the Board of Aldermen in February of 2019, with an addition of Electrical Utilites added and adopted in May of 2019. Due to economic factors of supply chain deliveries, we are having to wait extended periods of time to receive infrastructure that are purchased for utilities. In doing so, we currently do not require payment from the developer/builder/etc until after we have installed the infrastructure. Due to local governments having to follow certain guidelines for budgeting during the fiscal year, this gets cumbersome with tracking expenses vs revenues over multiple years. The town is purchasing these items and expending the funds in one year but in some cases, we are not recongizing the revenue until the following year.

We would like to recommend adding to the current utility policy a payment of 50% due up front when we order the items and then the remainder paid with 90 days.

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MANAGER'S RECOMMENDATION: To add 50% payment up front and the remainder within 90 days.

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BOARD ACTION TAKEN:

## Town of Dallas Policy for Extensions of Electric, Water, and Sewer Utilities

1. All electric, water, and sewer extensions shall be made by the Town's Utility Department or approved licensed utility contractor. All costs associated with said utility extensions, including, but not limited to the following: construction costs, permit fees, engineering costs, review fees, all electric, water and sewer user charges, and any applicable system development fees shall be the responsibility of the developer or owner. All procedures set forth in this policy shall be followed for all such extensions.
2. Any person desiring to install any electric, water, or sewer line within the Town's service area, to be connected to and served by the electric, water, and sewer systems of the Town, shall make application therefore to the Town, and with the Town's approval if applicable, to the North Carolina Department of Environmental Quality (NC DEQ) on forms designated by the NC DEQ and shall furnish such information or exhibits as are required by such application forms. With such application, the applicant shall:
  - a. Pay to the Town the nonrefundable application fee set forth in the Town's schedule of fees and any fees required by NC DEQ.
  - b. Submit 5 copies of engineering plans, profiles, and specifications of such electric line, water main or sewer line, including those for any required electric lines including all electric equipment, fire hydrants, valves, manholes, sewer lift stations, force mains, or collector sewer lines necessary in connection therewith, to the Town for approval.

During plan review the Town may determine upsizing and/or changes of utilities that would benefit the Town's future system requirements. The Town may request these plan revisions and may require estimates to be prepared and submitted for review to determine cost of construction. The Town may require these revisions and may reimburse the developer or owner for the difference in the materials and/or equipment for the required upsizing and/or changes at an agreed upon price. If the application is approved, and if the developer and/or owner and the Town shall agree, the Town Attorney shall prepare a written contract between the Town and the applicant in accordance with this policy.

3. No Electric line, water main, or sewer line may be installed and connected to the Town water or sewer system except after the necessary permit(s) required have been obtained, a written contract approved by the Town, and executed by the Town and the applicant. The Town Manager shall be authorized to execute any contract provided for herein according to the limits established in the Town's standard bidding procedures. All contracts shall incorporate the substance of the following provisions:
  - a. Installation of any electric line or electrical equipment, water main or sewer line, including any required fire hydrants, valves, manholes, sewer lift stations, force mains, or collector sewer lines necessary in connection therewith, shall be done by the applicant, if the applicant under the laws of North Carolina is permitted to make such installations, or by a contractor of the applicant licensed by the State of North Carolina and approved by the Town, to make such installations. Such installations shall be done in accordance with engineering plans, profiles, and specifications approved by the Town and a copy of the same shall be endorsed as to such approval for the applicant's use. The applicant shall be responsible, at his/her own expense, for the preparation of any such required plans, profiles, and specifications, for obtaining approval for electric line, sewer line, and water line extensions from all applicable review agencies, and for any other engineering fees in connection with the installation of such utilities.
  - b. The installation of the utilities shall be subject to the inspection and supervision of the Town during construction, and the connection thereof to the Town electric, water or sewer system shall not be made or maintained until the same shall have been tested under supervision of, and with the written approval and acceptance of such installation, given by the Town. After such approval and acceptance, the Town shall thereafter repair and maintain the same, except the applicant shall be responsible for defects in workmanship or materials or any noncompliance with the plans and specifications that appear within one year after such acceptance.
  - c. Installation of such utilities shall be done and completed at the sole expense and responsibility of the applicant, free and clear of all claims or encumbrances. Any and all pre-agreed upon reimbursements shall be paid at the completion and acceptance of the work by the Town. Permitted utilities shall be under construction within 12

months of the approval or contract date. If, for any reason, substantial progress is not attained within a 12-month period the contract shall become null and void and reapplication may be required.

- d. The applicant shall, at his expense (including attorney's fees and recording expenses) obtain for, or provide to, the Town such perpetual rights-of-way or deeds as shall be specified by the Town for the construction, maintenance, and operation of such utilities, including any encroachment agreements that may be required from the North Carolina Department of Transportation, railroad, or any other public utility.
  - e. Upon completion of the utilities and the connection thereof to the Town's electric, water, and sewer system, the electric line and electric equipment, water main, or sewer line, and any fire hydrants, valves, manholes, sewer lift stations, force mains, or collector sewer lines required in connection therewith shall, thereupon and thereafter, be the entire and sole property of the Town and under the sole and exclusive control of the Town.
  - f. Neither the applicant, nor any other person, shall be entitled to any service laterals from any electric line, water main, or sewer line installed by the applicant, except upon permission of the Town and the payment of any meter or any other service connection charges therefore as required by the ordinances or regulations of the Town, including, but not limited to, the system development fee.
  - g. If a water main, sewer line, sewer force main, or collector line shall be required by the Town in excess of eight inches in size to provide for the expansion of water or sewer service to other properties, then the Town may agree to reimburse the applicant the difference in the cost of the pipe material for any such water main, sewer line, sewer force main, or collector sewer line, such difference in cost to be determined by the Town from whatever source deemed appropriate by the Town. However, the Town will not agree to refund any such difference if any such water main or sewer line in excess of eight inches is necessary to serve the property intended to be then served thereby. In addition, if in order to provide for system expansion, the Town determines a pump station should be oversized, the developer shall install the required system. The additional cost associated with the upsizing of the system will be agreed upon between the Town and the developer or owner prior to construction. The Town may reimburse the developer or owner that agreed upon amount as detailed within this policy. Any such cost differences which the Town agrees to refund shall be due and payable without interest to the applicant in August following the first April after the date on which the utilities to be installed under the contract have been completed, accepted, and approved by the Town.
  - h. The applicant shall agree to indemnify and hold harmless the Town from any and all loss, cost, damages, expense and liability (including attorney's fees) caused by accident or occurrence causing bodily injury or property damage arising from the installation of such utilities by the applicant or the contractor of the applicant. The applicant or the contractor of the applicant shall maintain workers' compensation coverage as well as general liability insurance with a contractual coverage endorsement and automobile liability insurance with policy limits of not less than \$1,000,000.00 per occurrence for bodily injury and \$1,000,000.00 for property damage. The applicant will furnish certificates of such insurance to the Town with the provision that the Town will be given 30 days' written notice of any intent to terminate such insurance by either the applicant or the insuring company.
  - i. The contract shall be conditioned on the applicant complying with all zoning and subdivision ordinances and regulations of the Town that are applicable to any properties to be serviced by the utilities, and also any ordinances or regulations of the Town for the operation, control, maintenance, and protection of the electric, water and sewer systems of the Town.
  - j. In the event the applicant violates any of the terms of the contract, the Town shall have the right to declare all or any of the rights of the applicant under the contract forfeited, and to remove and disconnect any connections that might have been made to the Town's electric, water, or sewer systems.
4. Without limiting the right of the Town to disapprove for any reason whatsoever the execution of any written contract between an applicant and the Town prepared in accordance with this policy, the Town will not approve any contract for the installation of any electric line, water main, or sewer line to be connected to and served by its utilities systems if in the judgment of the Town the projected volume of usage that would be used by any properties to be serviced thereby would unduly tax the available supply and/or capacity of the Town, or it would not be financially feasible for the Town to commit itself to such cost.

Before submitting a formal application under this policy, an applicant may request from the Board of Aldermen an informal advisory opinion on its willingness to allow such service line extension. Such request shall be filed with the Town,

together with such documentation as the Town deems necessary, and the Town shall thereafter bring such request before the Board of Aldermen pursuant to normal agenda procedures. An advisory opinion given by the Board of Aldermen shall not bind the Board of Aldermen to approve an application submitted thereafter or to execute any contract prepared under this policy.

5. Whenever offsite electric, water and sewer line extensions are made at the developer's expense, the Town may refund to the developer of the property served by such extension an amount agreed upon and included in the contract prior to construction, if the extension serves a broader purpose than the developer's project. The maximum reimbursement amounts will be included in the contract. Reimbursements are to be made by the Town to the developer from budgeted funds in annual payments in August of each calendar year based on certificates of compliance issued by April 1 of the preceding fiscal year and the percentage of development completed in accordance with site plans/subdivision plans approved by the Town.
6. Reimbursements under this policy shall be limited as follows:
  - a. Notwithstanding the provisions of this policy, the developer will be eligible for reimbursements only during the first five years after the contract has been approved.
  - b. An applicant shall submit a request for reimbursement to the Town Manager by April 1 preceding the fiscal year in which he/she wishes to be paid those reimbursements he/she is eligible for under the terms of the contract. No reimbursements shall be paid unless the applicant has complied with the above procedure.
  - c. No reimbursements shall be made until the Town receives and approves the engineer's certification, as-built drawings, and dedications or conveyances of necessary easements and rights-of-way. If such drawings, easements, and rights-of-way are not received by the Town within 90 days of the tentative approval for acceptance of the electric, water, and sewer line extensions by the Town, 20 percent of the eligible refund will be retained by the Town for the preparation of as-built drawings, easements, and rights-of-way.

# TOWN OF DALLAS, NORTH CAROLINA

## REQUEST FOR BOARD ACTION

DESCRIPTION: BackFlow Prevention and Cross Connection Policy

AGENDA ITEM NO. 3B

MEETING DATE: 8/27/2024

### BACKGROUND INFORMATION:

Bill Trudnak (Public Works Director) and Zack Foreman (Asst. Public Works Director) would like to adopt a Backflow prevention and cross connection policy. They have worked diligently on this policy, piggybacking off of other policies in place, with mending it to fit Dallas' needs.

This is a request from the State for now, but could become a requirement, eventually.

Attached you will find the policy up for discussion.

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MANAGER'S RECOMMENDATION:

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BOARD ACTION TAKEN:

## ***BACKFLOW PREVENTION AND CROSS-CONNECTION CONTROL<sup>1</sup>***

### **Purpose.**

- (a) The purpose of this cross-connection control division is to define the authority of the town as the water purveyor in the elimination of all cross-connections within its public potable water supply.
- (b) This division shall apply to all users connected to the town public potable water supply regardless of whether the user is located within the town limits or outside of the town limits.
- (c) This division complies with the Federal Safe Drinking Water Act (PL 93-523), the North Carolina State Administrative Code (15A NCAC 18C .0400), and the North Carolina State Building Code (Volume II) as they pertain to cross-connections with the public water supply.

### **Objectives.**

The specific objectives of this cross-connection control division for the town are as follows:

- (1) To protect the public potable water supply of the town against actual or potential contamination by isolating within the consumer's water system contaminants or pollutants which could, under adverse conditions, backflow through uncontrolled cross-connections into the public water system.
- (2) To eliminate or control existing cross-connections, actual or potential, between the consumer's potable water system and non-potable or industrial piping system.
- (3) To provide a continuing inspection program of cross-connection control which will systematically and effectively control all actual or potential cross-connections that may be installed in the future.
- (4) To comply with all applicable federal and state regulations.

### **Responsibilities.**

- (a) *Health agency:* The North Carolina Department of Environment and Natural Resources (NCDENR) - Division of Environmental Health has the responsibility for promulgating and enforcing laws, rules, regulations and policies to be followed in carrying out an effective cross-connection control program. NCDENR has the primary responsibility of ensuring that the water purveyor operates the public potable water system free of actual or potential sanitary hazards, including unprotected cross-connections. NCDENR has the further responsibility of insuring that the water purveyor provides an approved water supply at the service connection to the consumer's water system; and, further, that the water purveyor requires the installation, testing, and maintenance of an approved backflow prevention assembly on the service connection when required.
- (b) *Water purveyor (town):* Except as otherwise provided in this division, the water purveyor's (town) responsibility to ensure a safe water supply begins at the source and includes all of the public water distribution system, including the service connection, and ends at the point of delivery to the consumer's water system. In addition, the town shall exercise reasonable vigilance to ensure that the consumer has taken the proper steps to protect the public potable water system. To ensure that the proper precautions are taken, the town is required to determine the degree of hazard or potential hazard to the public potable water system; to determine the degree of protection required; and to ensure proper containment protection through an on-going inspection program. When it is determined that a backflow prevention assembly is

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required for the protection of the public system the town shall require the consumer, at the consumer's expense, to install an approved backflow prevention assembly at each service connection, to test immediately upon installation and thereafter at a frequency as determined by the town, to properly repair and maintain such assembly or assemblies and to keep adequate records of each test and subsequent maintenance and repair, including materials and/or replacement parts.

- (c) **Plumbing inspection:** The plumbing inspection departments of the town and Gaston County (county) have the responsibility to not only review building plans and inspect plumbing as it is installed, but they have the explicit responsibility of preventing cross-connections from being designed and built into the plumbing system within its jurisdiction. Where the review of building plans suggests or detects the potential for cross-connections being made an integral part of the plumbing system, the plumbing inspector has the responsibility, under the state building code, for requiring that such cross-connections be either eliminated or provided with backflow prevention equipment approved by the state building code. The plumbing inspector's responsibility begins at the point of delivery, downstream of the first installed backflow prevention assembly, and continues throughout the entire length of the consumer's water system. The plan inspector should inquire about the intended use of water at any point where it is suspected that a cross-connection might be made or where one is actually called for by the plans. When such is discovered it shall be mandatory that a suitable backflow prevention assembly, approved by the state building code, be required by the plans and be properly installed. The primary protection assembly for containment purposes only shall have approval from the town, the state building code, and NCDENR.
- (d) **Consumer:**
- (1) The consumer has the primary responsibility of preventing pollutants and contaminants from entering their potable water system and/or the public potable water system. The consumer's responsibility starts at the point of delivery from the public potable water system and includes all of his/her water system. The consumer, at his/her own expense, shall install, operate, test and maintain approved backflow prevention assemblies as directed by the town. The consumer shall maintain accurate records of tests and repairs made to backflow prevention assemblies and shall maintain such records for a minimum period of five years. The records shall be on forms approved by the town and shall include the list of materials or replacement parts used. Following any repair, overhaul, re-piping or relocation of an assembly, the consumer shall have it tested to ensure that it is in good operating condition and will prevent backflow. Tests, maintenance and repairs of backflow prevention assemblies shall be made by a certified backflow prevention assembly tester.
  - (2) Town shall require all new water connections and any changes of use/occupancy to have an approved backflow prevention assembly installed. As older connections are reviewed for compliance, hazards are identified and need is determined by utilities staff. The consumer/customer shall be responsible for installing backflow prevention assemblies or bringing the existing installations up to current standards.
- (e) **Certified backflow prevention assembly testers:** When employed by the consumer to test, repair, overhaul, or maintain backflow prevention assemblies, a certified backflow prevention assembly tester will have the following responsibilities:
- (1) All certified testers must have a thorough understanding of the Town of Dallas Backflow Ordinance and adhere to test procedures for double check valves and reduce pressure principle assemblies as listed in the current procedures from the University of Southern California Foundation for Cross-Connection and Hydraulic Research Manual of Cross-Connection Control.
  - (2) The certified tester will be responsible for making competent inspections and for repairing or overhauling backflow prevention assemblies and making reports of such repair to the consumer and responsible authorities on forms approved by the town. The certified tester shall include the list of materials or replacement parts used.
  - (3) The certified tester shall be equipped with and be competent to use all the necessary tools, gauges, manometers and other equipment necessary to properly test, repair and maintain backflow prevention



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assemblies. It will be the certified tester's responsibility to ensure that original manufactured parts are used in the repair of or replacement of parts in a backflow prevention assembly.

- (4) It will be the certified tester's further responsibility not to change the design, material or operational characteristics of an assembly during repair or maintenance without prior approval of the town.
- (5) A certified tester shall perform the work and be responsible for the competency and accuracy of all tests and reports. A certified tester shall provide a copy of all test and repair reports to the consumer and to the town cross-connection control personnel within ten business days of any completed test or repair work. A certified tester shall maintain such records for a minimum period of five years.
- (6) All certified backflow prevention assembly testers must obtain and employ backflow prevention assembly test equipment, which has been evaluated and/or approved by town. All test equipment shall be checked for accuracy annually (at a minimum) and calibrated. Calibration records shall be maintained by the certified tester for a minimum of five years. Copies of these records shall be forwarded to the town for their files on an annual basis.

### **Definitions.**

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

- (1) *Air-gap separation* —means a physical separation between the free flowing discharge end of a potable water supply pipeline and an open and non-pressure receiving vessel. An approved air-gap separation shall be at least double the diameter of the supply pipe measured vertically above the overflow rim of the receiving vessel, in no case less than one inch (2.54 cm).
- (2) *Approved means* —as used in reference to a water supply, a water supply that has been approved by the state department of environment and natural resources; or, as used in reference to air-gap separation, a pressure vacuum breaker, a double check valve assembly, a double check detector assembly, a reduced pressure principle backflow prevention assembly, a reduced pressure principle detector assembly, or other backflow prevention assemblies or methods means an approval by the Town of Dallas.
- (3) *Backflow* —means the undesirable reversal of flow of water or mixtures of water and other liquids, gases, or other substances into the distribution pipes of the consumer or public potable water system from any source or sources.
- (4) *Backflow prevention assembly—Approved*: The term "approved backflow prevention assembly" means an assembly used for containment and/or isolation purposes that has been investigated and approved by the town and has been shown to meet the design and performance standards of the American Society of Sanitary Engineers (ASSE), the American Water Works Association (AWWA), or the Foundation for Cross-Connection Control and Hydraulic Research of the University of Southern California. The approval of backflow prevention assemblies by the town is based on a favorable report by the Foundation for Cross-Connection Control and Hydraulic Research of the University of Southern California, recommending such an approval. To be approved, an assembly must be readily accessible for in-line testing and maintenance, and shall successfully complete a one-year field evaluation/testing within the town water system.
- (5) *Backflow prevention assembly—Unapproved*: The term "unapproved backflow prevention assembly" means an assembly that has been investigated by town and has been determined to be unacceptable for installation within the town's water system. Consideration for disapproval and removal from the "approved list" shall be based upon, but not limited to the following criteria:
  - a. Device has not been shown to meet the design and performance standards of the American Society of Sanitary Engineers (ASSE), the American Water Works Association (AWWA), or the

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Foundation for Cross-Connection Control and Hydraulic Research of the University of Southern California.

- b. Due to poor performance standards (i.e., significant failure rate);
  - c. Lack of or unavailability of repair parts; and/or
  - d. Poor service or response from assembly's factory representative.
- (6) *Backflow prevention assembly—Type* means an assembly used to prevent backflow into a consumer or public potable water system. The type of assembly used should be based on the degree of hazard either existing or potential: The types are:
- a. Double check valve assembly (DCVA).
  - b. Double check detector assembly (fire system) (DCDA).
  - c. Reduced pressure principle assembly (RP).
  - d. Reduced pressure principle detector assembly (fire system). (RPDA).
  - e. Air Gap (AG).
- (7) *Backflow prevention assembly tester—Certified*. The term "certified backflow prevention assembly tester" means a person who has proven his competency to the satisfaction of the town. Each person who is certified to make competent tests, or to repair, overhaul, and make reports on backflow prevention assemblies shall be knowledgeable of applicable laws, rules and regulations, shall be a licensed plumber or have at least two years of experience under and be employed by a state licensed plumber or plumbing contractor, or have equivalent qualifications acceptable to the town and must hold a certificate of completion from an approved training program in the testing and repair of backflow prevention assemblies.
- (8) *Backflow prevention device—Approved*. The term "approved backflow prevention device" means a device used for isolation purposes that has been shown to meet the design and performance standards of the American Society of Sanitary Engineers (ASSE) and the American Water Works Association (AWWA).
- (9) *Backpressure backflow* —means any elevation in the consumer water system, by pump, elevation of piping, or steam and/or air pressure, above the supply pressure at the point of delivery, which would cause, or tend to cause, a reversal of the normal direction of flow.
- (10) *Back-siphonage backflow* —means a reversal of the normal direction of flow in the pipeline due to a negative pressure (vacuum) being created in the supply line with the backflow source subject to atmospheric pressure.
- (11) *Check valve—Approved*. The term "approved check valve," means a check valve that is drip-tight in the normal direction of flow when the inlet pressure is at least one psi and the outlet pressure is zero. The check valve shall permit no leakage in a direction reverse to the normal flow. The closure element (e.g., clapper, poppet, or other design) shall be internally loaded to promote rapid and positive closure. An approved check valve is only one component of an approved backflow prevention assembly, i.e., double check valve assembly, double check detector assembly, reduced pressure principle assembly, or reduced pressure detector assembly.
- (12) *Town*—The Town of Dallas.
- (13) *Consumer/customer* —means any person, firm, or corporation using or receiving water from the town's water system.
- (14) *Consumer's potable water system*— means that portion of the privately-owned potable water system lying between the point of delivery and point of use and/or isolation protection. This system will

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include all pipes, conduits, tanks, receptacles, fixtures, equipment, and appurtenances used to produce, convey, store, or use potable water.

- (15) Consumer's water system —means any water system commencing at the point of delivery and continuing throughout the consumer's plumbing system, located on the consumer's premises, whether supplied by public potable water or an auxiliary water supply. The system or systems may be either a potable water system or an industrial piping system.
- (16) Containment— means preventing the impairment of the public potable water supply by installing an approved backflow prevention assembly at the service connection.
- (17) Contamination —means an impairment of the quality of the water, which creates a potential or actual hazard to the public health through the introduction of hazardous or toxic substances or through the spread of disease by sewage, industrial fluids or waste.
- (18) Cross-connection— means any unprotected actual or potential connection or structural arrangement between a public or a consumer's water system and any other source or system through which it is possible to introduce any contamination or pollution, other than the intended potable water with which the system is supplied. Bypass arrangements, jumper connections, removable sections, swivel or changeover devices, and other temporary or permanent devices through which or because of which "backflow" can or may occur considered being cross-connections.
- (19) Double check detector assembly —means a specially designed assembly composed of a line-size approved double check valve assembly with a specific bypass water meter and a meter-sized approved double check valve assembly. The meter shall register (in U.S. gallons) accurately for only very low rates of flow and shall show a registration for all rates of flow. This assembly shall only be used to protect against a non-health hazard (i.e., pollutant).
- (20) Double check valve assembly —means an assembly composed of two independently acting, approved check valves, including tightly closing shutoff valves attached at each end of the assembly and fitted with properly located test cocks. This assembly shall only be used to protect against a non-health hazard (i.e., pollutant).
- (21) Hazard—Degree of. The term "degree of hazard" is derived from the evaluation of conditions within a system which can be classified as either a "pollutant" (non-health) or a "contamination" (health) hazard.
- (22) Hazard—Health. The term "health hazard" means an actual or potential threat of contamination of a physical, hazardous or toxic nature to the public or consumer's potable water system to such a degree or intensity that there would be a danger to health.
- (23) Hazard—Non-health. The term "non-health hazard" means an actual or potential threat to the quality of the public or the consumer's potable water system. A non-health hazard is one that, if introduced into the public water supply system could be a nuisance to water customers, but would not adversely affect human health.
- (24) Hazard—Pollutional. The term "pollutional hazard" means an actual or potential threat to the quality or the potability of the public or the consumer's potable water system but which would not constitute a health or a system hazard, as defined. The maximum degree or intensity of pollution to which the potable water system could be degraded under this definition would cause a nuisance or be aesthetically objectionable or could cause minor damage to the system or its appurtenances.
- (25) Health agency —means the state department of environment and natural resources.
- (26) Industrial fluids— means 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 or non-health hazard if introduced into a public or consumer potable water system. Such fluids may include, but are not limited to, process waters; chemicals in fluid form; acids and alkalis; oils, gases, etc.

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- (27) Industrial piping system—Consumer's. The term "consumer's industrial piping system" means any system used by the consumer for transmission of or to confine or store any fluid, solid or gaseous substance other than an approved water supply. Such a system would include all pipes, conduits, tanks, receptacles, fixtures, equipment, and appurtenances used to produce, convey, or store substances, which are or may be polluted or contaminated.
- (28) Isolation —means the act of confining a localized hazard within a consumer's water system by installing approved backflow prevention assemblies. Disclaimer: The town may make recommendations, upon facility inspection, as to the usages of isolation devices/assemblies, but does not assume or have responsibility whatsoever for such installations.
- (29) Point of delivery— means generally at the property line of the customer, adjacent to the public street where the town mains are located, or at a point on the customer's property where the meter is located. The customer shall be responsible for all water piping and control devices located on the customer's side of the point of delivery.
- (30) Pollution — means an impairment of the quality of the water to a degree which does not create an actual hazard to the public health but which does adversely and unreasonably affect the aesthetic qualities of such waters for domestic use.
- (31) Potable water —means water from any source which has been investigated by the state department of environment and natural resources and which has been approved for human consumption.
- (32) Public potable water system —means any publicly or privately-owned water system operated as a public utility, under a current state department of environment and natural resources permit, to supply water for public consumption or use. This system will include all sources, facilities, and appurtenances between the source and the point of delivery such as valves, pumps, pipes, conduits, tanks, receptacles, fixtures, equipment, and appurtenances used to produce, convey, treat, or store potable water for public consumption or use.
- (33) Reduced pressure principle backflow prevention assembly —means an assembly containing within its structure a minimum of 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 first check valve reduces the supply pressure a predetermined amount so that during normal flow and at cessation of normal flow, the pressure between the checks is less than the supply pressure. In case of leakage of either check valve, the pressure differential relief valve, by discharge to atmosphere, shall operate to maintain the pressure between the checks less than the supply pressure. The unit shall include tightly closing shutoff valves located at each end of the assembly and each assembly shall be fitted with properly located test cocks. The assembly is designed to protect against a health hazard (i.e., contaminant).
- (34) Reduced pressure principle detector assembly —means a specially designed assembly composed of a line-size approved reduced pressure principle backflow prevention assembly with a specific bypass water meter and a meter-size approved reduced pressure principle backflow prevention assembly. The meter shall register, in U.S. gallons, accurately for only very low rates of flow and shall show a registration for all rates of flow. This assembly shall be used to protect against a health hazard (i.e., contaminant).
- (35) Service connections —means the terminal end of a service connection from the public potable water system, i.e., where the town loses jurisdiction and sanitary control over the water at its point of delivery to the consumer's water system.
- (36) Water purveyor —means the owner or operator of a public potable water system, providing an approved water supply to the public.
- (37) Water supply—Approved. The term "approved water supply," means any public potable water supply, which has been investigated and approved by the state department of environment and natural
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resources. The system must be operating under a valid health permit. In determining what constitutes an approved water supply, the state department of environment and natural resources has reserved the final judgment as to its safety and potability.

- (38) Water supply—Auxiliary. The term "auxiliary water supply" means any water supply on or available to the premises other than the purveyor's approved public potable water supply. These auxiliary waters may include water from another purveyor's public potable water supply or any natural source such as a well, spring, river, stream, etc., "used water", or industrial fluids. These waters may be polluted, contaminated, or objectionable and constitute an unacceptable water source over which the water purveyor does not have sanitary control.
- (39) Water supply—Unapproved. The term "unapproved water supply" means a water supply which has not been approved for human consumption by the state department of environment and natural resources.
- (40) Water—Used. The term "used water," means any water supplied by a water purveyor from a public water system to a consumer's water system after it has passed through the point of delivery and is no longer under the control of the water purveyor.

### **Right of entry.**

- (a) Authorized representatives from the town shall have the right to enter, upon presentation of proper credentials and identification, any building, structure, or premises during normal business hours, or at any time during the event of an emergency, to perform any duty imposed by this division. Those duties may include sampling and testing of water, or inspections and observations of all piping systems connected to the public water supply. Where a user has security measures in force which would require proper identification and clearance before entry into their premises, the user shall make necessary arrangements with the security guards so that upon presentation of suitable identification, town personnel will be permitted to enter, without delay, for the purposes of performing their specific responsibilities. Refusal to allow entry for these purposes may result in discontinuance of water service.
- (b) Upon request, the consumer shall furnish to the town any pertinent information regarding the public or private water system, irrigation system, or service connection on such property where cross-connections and backflow are deemed possible.

### **Elimination of cross-connections.**

- (a) No water service connection to any private water system shall be installed or maintained by the town unless the potable water supply is protected as required by this division and other applicable laws. Service of water to any premises shall be discontinued by the town if a backflow prevention assembly, required by this division, is not installed, tested, and maintained in accordance with this division or if a backflow prevention device has been removed, by-passed, or if an unprotected cross-connection exists on the premises. Service will be restored after all such conditions or defects are corrected in accordance with this division.
- (b) No customer shall allow an unprotected cross-connection to be made or to remain involving the customer's private water system.
- (c) No connection shall be made to an unapproved auxiliary water supply unless the public water supply is protected against backflow by an approved backflow prevention device.
- (d) All customers shall maintain in good operating condition any backflow prevention assembly, which is part of the customer's private water system and is required by this division.
- (e) No person shall fill special use tanks or tankers containing pesticides, fertilizers, other toxic chemicals or their residues from the public water system except at a location equipped with an air gap or an approved reduced pressure principle backflow prevention assembly properly installed on the public water supply.

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- (f) The town shall not be liable for damages, losses, claims, etc., arising from discontinuance of water service, damages or excessive water bills related to discharges from backflow prevention assemblies, or thermal expansion/freezing, for any reason.
- (g) When unapproved devices or cross-connections are found to exist, the owner, his agent, occupant, or tenant will be notified in writing to disconnect the cross-connection within the time limit established by the town. Degree of protection required and maximum time allowed for compliance will be based upon the potential degree of hazard to the public water supply system. The time limits are as follows:
- (1) Cross-connections with private wells or other auxiliary water supplies: Immediate disconnection.
  - (2) If, in the judgment of the town, an imminent health hazard exists, water service to the building or premises where a cross-connection exists may be terminated unless an air gap is immediately provided, or the cross-connection is immediately eliminated.
  - (3) All facilities, which pose a health hazard to the potable water system, must have a containment assembly in the form of a reduced pressure principle backflow prevention assembly within 30 days.
  - (4) Severe hazards without existing backflow prevention but without imminent threat: 30 days to six months.
  - (5) Moderate hazards without existing backflow prevention, but without imminent threat: 30 days to one year.
  - (6) Low hazards without existing backflow prevention: 30 days to two years.
  - (7) Existing, but nonconforming backflow devices without imminent threat: 30 days to two years.
  - (8) Water mains served by the town water supply but not maintained by the town should be considered cross-connections, with degree of hazard to be determined by the town. Degree of protection shall be based upon the degree of hazard, as determined by the town.
- (h) In the event that a town cross-connection control inspector does not have sufficient access to every portion of a private water system (e.g., classified research and development facilities; federal government property) to allow a complete evaluation of the degree of hazard associated with such private water systems, an approved reduced pressure principle assembly shall be required as a minimum of protection.

### **Installation of assemblies.**

- (a) All proposed connections to town's water system shall apply to Town of Dallas for review, determination of degree of hazard and approval.
- (b) All new construction plans and specifications, when required by the state building code and the state department of environment and natural resources, shall be made available to the town for review and approval, and to determine the degree of hazard.
- (c) The installation or replacement of a backflow prevention assembly shall be performed only by a licensed plumber (irrigation contractor) or licensed utility contractor.
- (d) All backflow prevention assemblies shall be installed and maintained on the customer's premises as part of the customer's private water system at or near the service connection, or at the building or facility and before service line is connected to any other pipes.
- (e) All backflow assemblies shall in accordance with the standard details/specifications furnished by the town and/or the manufacturer's installation instructions and/or in the latest edition of the state building code, whichever is most restrictive.
- (f) All new construction plans and specifications, when required by the state building code and the state department of environment and natural resources, shall be made available to the town for review and approval, and to determine the degree of hazard.

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- (g) Installation, ownership, testing, and maintenance of the assembly shall be the responsibility of the customer.
  - (h) All double check valve assemblies must be installed in drainable pits wherever below ground installation is necessary, in accordance with detailed specifications provided by the town.
  - (i) Reduced pressure principle assemblies must be installed in a horizontal position and in a location in which no portion of the assembly can become submerged in any substance under any circumstances. Pit and/or below grade installations are prohibited. Double check valve assemblies may be installed in a vertical position with prior approval from the town cross-connection control department provided the flow of water is in an upward direction.
  - (j) The installation of a backflow prevention assembly, which is not approved, must be replaced with an approved backflow prevention assembly.
  - (k) Following installation, all reduced pressure principle backflow preventers (RP), double check valve assemblies (DCVA), double check detector assemblies (DCDA), or reduced pressure principle detector assemblies (RPDA) are required to be tested by a certified backflow prevention assembly tester within ten days.
  - (l) The installer is responsible to make sure a backflow prevention assembly is working properly upon installation and is required to furnish the following information to the town cross-connection control program within ten days after a reduced pressure principle backflow preventer (RP), double check valve assembly (DCVA), double check detector assembly (DCDA), or reduced pressure principle detector assembly (RPDA) is installed:
    - (1) Service address where assembly is located.
    - (2) Owner and address, if different from service address.
    - (3) Description of assembly's location.
    - (4) Date of installation.
    - (5) Installer, include name, plumbing company represented, plumber's license number, and project permit number.
    - (6) Type of assembly, size of assembly.
    - (7) Manufacturer, model number, serial number.
    - (8) Test results/report.
    - (9) Certified tester certificate number.
    - (10) Water meter serial number.
  - (m) When it is not possible to interrupt water service, provisions shall be made for a parallel installation of backflow prevention assemblies. Parallel assemblies on a by-pass line are to be the same size as the primary assembly. The town will not accept an unprotected bypass around a backflow preventer when the assembly needs testing, repair or replacement.

### **Testing and repair of assemblies.**

- (a) Testing of backflow prevention assemblies shall be made by a certified backflow prevention assembly tester approved by the town or may be contracted out to the town cross-connection control at the customer's expense. Such tests are to be conducted upon installation and annually thereafter. A record of all testing and repairs is to be retained by the customer for a minimum of five years. Copies of the records must be provided to the town cross-connection control within ten business days after the completion of any testing and/or repair work.
- (b) Any time that repairs to backflow prevention assemblies are deemed necessary, whether through annual or required testing or routine inspection by the owner or by the town, these repairs and retesting of the devices

must be completed within a specified time in accordance with the degree of hazard. In no case shall this time period exceed:

- (1) *Health hazard facilities:* Within 14 days of notice, unless specified otherwise by the town.
- (2) *Non-health hazard facilities:* Within 21 days of notice, unless specified otherwise by the town.
- (c) All backflow prevention assemblies with test cocks are required to be tested annually. Testing requires a water shutdown usually lasting five to 20 minutes. For facilities that require an uninterrupted supply of water, and when it is not possible to provide water service from two separate meters, provisions shall be made for a parallel installation of backflow prevention assemblies.
- (d) All certified backflow prevention assembly testers must obtain and employ backflow prevention assembly test equipment, which has been evaluated and/or approved by town. All test equipment shall be checked for accuracy annually (at a minimum) and calibrated. Calibration records shall be maintained by the certified tester for a minimum of five years. Copies of these records shall be forwarded to the town for their files within ten days of testing.
- (e) It shall be unlawful for any customer or certified tester to submit any record to the town, which is false or incomplete in any material respect. It shall be unlawful for any customer or certified tester to fail to submit to any record, which is required by this division. Such violations may result in any of the enforcement actions outlined in section 44-120.10 of this division.

**Facilities requiring protection.**

- (a) Approved backflow prevention assemblies shall be installed on the service line to any premises that the town has identified as having a potential for backflow.
- (b) The following types of facilities or services have been identified as having a potential for backflow of non-potable water into the public water supply system. Therefore, an approved backflow prevention assembly will be required on all such services according to the degree of hazard present. Facilities or services not listed below may also be required to install approved backflow prevention assemblies; however, the appropriate device shall be determined on a case by case basis by the town. If the degree of hazard cannot be determined (due to confidential activities, unknown connections, etc.) a reduced pressure assembly (RP) shall be required as a minimum. As a minimum requirement, all commercial services will be required to install a double check valve assembly, unless otherwise listed as follows:

Key:

DCVA =	Double check valve assembly
RP =	Reduced pressure principle assembly
DCDA =	Double check detector assembly
RPDA =	Reduced pressure detector assembly
AG =	Air gap
PVB =	Pressure vacuum breaker

- (1) Aircraft and missile plants: RP
- (2) Automotive services stations, dealerships, etc.:
  - a. No health hazard: DCVA
  - b. Health hazard: RP



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- (3) Automotive plants: RP
  - (4) Auxiliary water systems:
    - a. Approved public/private water supply: DCVA
    - b. Unapproved public/private water supply: AG
    - c. Used water and industrial fluids: RP
  - (5) Bakeries:
    - a. No health hazard: DCVA
    - b. Health hazard: RP
  - (6) Beauty shops/barber shops:
    - a. No health hazard: DCVA
    - b. Health hazard: RP
  - (7) Beverage bottling plants: RP
  - (8) Breweries: RP
  - (9) Buildings—Hotels, apartment houses, public and private buildings, or other structures having unprotected cross-connections:
    - a. (Under five stories) no health hazard: DCVA
    - b. (Under five stories) health hazard: RP
    - c. (Over five stories) all: RP
  - (10) Canneries, packing houses, and rendering plants: RP
  - (11) Chemical plants—Manufacturing, processing, compounding or treatment: RP
  - (12) Chemically contaminated water systems: RP
  - (13) Commercial carwash facilities: RP
  - (14) Commercial greenhouses: RP
  - (15) Commercial sales establishments (department stores, malls, etc.):
    - a. No health hazard: DCVA
    - b. Health hazard: RP
  - (16) Concrete/asphalt plants: RP
  - (17) Dairies and cold storage plants: RP
  - (18) Dye works: RP
  - (19) Film/photo laboratories: RP
  - (20) Fire systems, fire trucks:
    - a. Systems three-fourths inch to two inches:
      - 1. No health hazard: DCDA (Fire trucks do not require detector assembly.)
      - 2. Health hazard: (booster pumps, foam, antifreeze solution, etc.): RP (Fire trucks do not require detector assembly.)

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- (21) Systems 2½ inches to ten inches or larger:
    - a. No health hazard: DCDA (Fire trucks do not require detector assembly).
    - b. Health hazard (booster pumps, foam, antifreeze solution, etc.): RPDA (Fire trucks do not require detector assembly.)
  - (22) Hospitals, medical buildings, sanitariums, morgues, mortuaries, autopsy facilities, nursing and convalescent homes, medical clinics, and veterinary hospitals: RP
  - (23) Industrial facilities:
    - a. No health hazard: DCVA
    - b. Health hazard: RP
  - (24) Laundries:
    - a. No health hazard: DCVA
    - b. Health hazard: (i.e., dry cleaners): RP
  - (25) Lawn irrigation systems: RP
  - (26) Metal manufacturing, cleaning, processing, and fabricating plants: RP
  - (27) Mobile home parks:
    - a. No health hazard: DCVA
    - b. Health hazard: RP
  - (28) Oil and gas production, storage or transmission properties: RP
  - (29) Paper and paper products plants: RP
  - (30) Pest control (exterminating and fumigating): RP
  - (31) Plating plants: RP
  - (32) Power plants: RP
  - (33) Radioactive materials or substances plants or facilities handling: RP
  - (34) Restaurants:
    - a. No health hazard: DCVA
    - b. Health hazard: RP
  - (35) Restricted, classified, or other closed facilities: RP
  - (36) Rubber plants (natural or synthetic): RP
  - (37) Sand and gravel plants: RP
  - (38) Schools and colleges: RP
  - (39) Sewage and storm drain facilities: RP
  - (40) Swimming pools: RP
  - (41) Truck wash facilities: RP
  - (42) Waterfront facilities and industries: RP
  - (43) Agricultural meter: RP

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(44) Etc.

- (c) All assemblies and installations shall be subject to inspection and approval by the town.
- (d) Modification of degree of hazard: Any consumer/customer making a modification that may change the degree of hazard shall notify the town utilities department before any modification is made. If the town determines that such modification requires a different backflow prevention device, the new device shall be installed before the modification is made.

### **Fire protection systems.**

- (a) All connections for fire protection systems connected with the public water system, two inches and smaller, shall be protected with an approved double check valve assembly as a minimum requirement. All fire systems using toxic additives and/or booster pumps shall be protected by an approved reduced pressure principle detector assembly at the main service connection.
- (b) All connections for fire protection systems connected with the public water system greater than two inches shall be protected with an approved double check detector assembly as a minimum requirement. All fire protection systems using toxic or hazardous additives and/or booster pumps shall be protected by an approved reduced pressure principle detector assembly at the main service connection.
- (c) All existing backflow prevention assemblies 2½ inches and larger installed on fire protection systems that were initially approved by the town shall be allowed to remain on the premises, as long as they are being properly maintained, tested and repaired as required by this Code. However, if the existing assembly must be replaced (once it can no longer be repaired), or in the event of proven water theft through an unmetered source, the consumer shall be required to install an approved double check detector assembly or reduced pressure principle detector assembly as required by this provision.

### **Enforcement and violations.**

Any consumer or other person who fails to comply with any provisions of this division, or who fails to comply with any notice or order made hereunder, or who shall install or alter a private water system in violation of this division or any detailed specifications or plans submitted and approved hereunder, or any certificate or permit issued hereunder, or who shall fail to comply with such a notice or order within the time fixed therein, or who shall submit a false or fraudulent report, or who fails to submit a report shall be in violation of this section for each occurrence or noncompliance and shall be subject to enforcement as provided in this section.

- (1) A written notice of violation shall be given to any person who is determined to be in violation of this division. Such notice shall be personally delivered, or delivered by certified mail, return receipt requested.
- (2) Such notice shall set forth the violation and the time period within the violation must be corrected. The violation must be corrected within the time period specified in the notice. If the town determines that the violation is occurring on a consumer's private water system and that such violation has created or contributed to the existence of an imminent health hazard, the consumer may be required to correct the violation immediately.
- (3) Water service may be suspended or terminated to a consumer if the consumer fails to correct a violation in a timely manner or fails to pay a civil penalty or expense assessed under this division. Suspension or termination of water service without prejudice to the town's ability to assert any other remedy available to the town against the consumer or any other person responsible for the violation.
- (4) The violation of any provision of this division shall subject the violator to a civil penalty. Each subsequent day that a violation continues shall constitute a separate and distinct offense. The offender

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shall be issued a written citation by delivery in person or mailed by certified or registered mail. The offender must pay the civil penalty within 72 hours of receipt of written citation.

- a. Unprotected cross-connection involving a private water system, which is a health hazard, \$1,000.00 per day not to exceed \$10,000.00.
  - b. Unprotected cross-connection involving a private water system, which is a non-health hazard, \$500.00 per day not to exceed \$5,000.00.
  - c. Falsifying records that are required to be submitted by this division, \$500.00 per violation.
  - d. Failing to test or maintain backflow prevention assemblies as required, \$100.00 per violation.
- (5) The town may increase any civil penalty assessed by 50 percent of the maximum civil penalty associated with the violation for a second violation of the same provision within a two-year period. The town may increase any civil penalty by doubling the amount of the penalty for a third violation of the same provision within a two-year period. Water service may be terminated after a third violation of the same period within a two-year period.
  - (6) Any person violating any provision of this division shall pay to the town all expenses incurred by the town in repairing any damage to the public water system caused in whole or in part by such violation and any expense incurred by the town in investigating such violation. All such expenses are deemed to be a part of the civil penalty assessed with the violation.
  - (7) The utilities director may reduce or dismiss any civil penalties imposed under this division if the utilities director has determined that the customer charged with the violation has no past history of violation and the violation is corrected in a timely manner as set forth by the utilities director. Civil penalties shall not be reduced if it has been determined that the violation was intentional.
  - (8) If a certified backflow prevention assembly technician submits falsified records to the town, the town reserves the right to accept or reject the certified backflow prevention assembly technician's report in the future and require certification from some other certified backflow prevention assembly technician.
  - (9) Enforcement of this program shall be administered by the public utilities director or his/her designee.