

Town of Northumberland

2 State Street, Groveton, NH 03582



WATER SYSTEM REGULATIONS

A regulation governing the use of the public water system and the installation and connection of water mains and appurtenances for the Town of Northumberland, County of Coos, State of New Hampshire.

The Board of Selectmen of the Town of Northumberland hereby adopts the following regulation for the management and protection of the Northumberland public water system and its associated facilities.

ARTICLE 1 – GENERAL PROVISIONS

Section 1. This regulation shall be known and may be cited as the “Northumberland Water System Regulation.”

Section 2. This regulation is adopted for the purpose of protecting the Town’s public water system and its associated facilities. The objective is to assure a safe, reliable, and ample supply of drinking water by controlling and regulating: construction of facilities and connections to the Town’s water system; usage of water supplied by the system; and improvements in developments that may become part of the system in the future.

Section 3. This regulation shall take effect upon its adoption and shall remain in effect until repealed, amended or superseded. The Selectmen shall review the provisions hereof as they deem necessary based upon then-existing conditions and circumstances.

Section 4. If any other applicable regulation, bylaws, ordinance or statute differs from the provisions of this regulation, the more stringent provision shall apply.

ARTICLE 2 – DEFINITIONS

Unless the context specifically indicates otherwise, the meaning of the terms used in this regulation shall be as follows:

1. "ASTM" means the American Society of Testing and Materials. "AWWA" means the American Water Works Association. Any ASTM, AWWA or other specification incorporated by reference in this regulation shall be deemed to refer to the most recent specifications or requirement.
2. "Department" means the Town of Northumberland Water and Sewer Department.
3. "Owner" means the record owner of property. When appropriate to the context, it may include an occupant of the property, or an agent, representative or contractor of such owner or occupant.
4. "Public", in reference to a water main or appurtenance, refers to a part of the Town water supply system.
5. "Shall" is mandatory. "May" is permissive.
6. "Supervisor" means the Supervisor of the Water and Sewer Department.
7. "Town" means the Town of Northumberland.
8. "Water main" means a common water pipe controlled by a governmental agency or public utility, subdivision or Homeowner's Association.
9. "Water service" means the pipe from a water main to a customer's location, and includes the corporation stop or tagging sleeve and any intermediate curbstop along the service pipe.

ARTICLE 3 – ADMINISTRATION

Section 1. The Board of Selectmen or their designee shall administer this regulation. All forms, applications, permits or other documents necessary to implement this regulation shall be promulgated by the Board of Selectmen. They may adopt rules and procedures as are necessary to implement this regulation. No waiver or exception from this regulation shall be effective unless approved in writing by the Board of Selectmen.

Section 2. Unless otherwise specified by this regulation or directed by the Board of Selectmen, all inquiries, applications and contact with the Town in matters relating to the water system shall be handled through the Board of Selectmen's office.

Section 3. Any authorized town employee or official, bearing proper credentials, may enter private property through which the Town holds an easement for the purpose of, but not limited to, inspection, observation, measurement, sampling, repair and maintenance of any portion of the water facilities lying within said easement. Access shall be obtained in a manner consistent with the terms of the easement. If Town facilities are located on private property for which specific easement rights may not exist, or if access to private property is required to view private facilities connected

to the Town system, such Town employees or officials shall be afforded access as necessary. If access is denied, appropriate search warrants or other appropriate authorizations may be obtained.

ARTICLE 4 – COMPLIANCE REQUIREMENT

Section 1. This regulation shall apply, where appropriate, to all property in the Town of Northumberland. The record owners of such property shall bear responsibility for assuring compliance herewith, but non-owner occupants, agents, contractors and representatives shall likewise comply with its terms.

Section 2. This regulation uses the term “Owner” as a matter of course. Where activities or conditions that are subject to this regulation are conducted by, or are under the control of, others (e.g. tenants, contractors, and subcontractors), those persons shall be deemed to be the owner for the purposes of compliance herewith.

ARTICLE 5 – REQUIRED CONNECTIONS AND FACILITIES

Section 1. Any structure capable of use for human occupancy, employment, business, commerce, industry, recreation, or other similar purposes, or which uses water for domestic purposes, situated within the Town of Northumberland and abutting any street, alley, or right-of-way in which a public water main is located, shall be connected, at the Owner’s expense, directly with the proper public water main in accordance with this regulation, within 90 days after receipt of notice from the Town to do so, provided that said public water main is within 100 feet of the property line.

Section 2. All connections to the Town water system shall first be approved by the Town in such manner as the Board of Selectmen determines, in accordance with application procedures set forth in this regulation. The materials used in, and the manner of, such installations and connections shall conform to the requirements and standards set forth in this regulation.

Section 3. The Town may require existing connections and installations to be examined and replaced where necessary to protect the system or public health or welfare.

Section 4. All new construction which utilizes a water supply or distribution system, and which is not proposed for connection to the Town system, shall use materials and installation methods that conform to this regulation.

ARTICLE 5-A

Section 1. Definitions. In this article, unless the context requires otherwise:

(A) "Multiple-user property" means a property or development which contains two (2) or more individual entities which separately utilize water supplied by the Town, including, without limitation by reason of enumeration, condominium developments, time-sharing facilities, and commercial malls and shopping centers.

(B) "Responsible party" means the person, association, or organization, which is responsible for payment of charges for water services under this article.

Section 2. Findings and Purpose.

(A) FINDINGS. As part of the expansion and improvement of the Town's Water System, installation and use of water meters will be required. Use of individual meters and bills for payment of water service provided to multiple-user properties would be costly and inefficient and the remedies available for nonpayment are largely ineffective and counterproductive if the Town is required to impose liens on individual units.

(B) PURPOSE. The purpose of this regulation is to establish an efficient and effective means of billing for water service provided to multiple-user properties and to thereby reduce delinquent accounts and lessen the overall administrative and other costs incurred in providing water service.

Section 3. Combined Billing and Payment.

(A) GENERAL REQUIREMENT. Except when a waiver is granted pursuant to Section 6, and commencing with charges for water service provided on and after June 1, 1993, billing, payment and collection of charges for water services provided to multiple-user properties shall be governed by this section.

(1) Water service to a multiple-user property shall be provided in the name of the responsible party determined by the Board of Selectmen in accordance with the following:

(a) Where the multiple-user property is owned as a single entity rather than individual, identifiable units, the record owner (s) shall be the responsible party.

(b) Where a unit owners association, home owners association or other group exists, under recorded covenants or other documents, which includes all units in the property, that entity shall be the responsible party.

(c) In any other instance, the responsible party shall be determined by the users, subject to approval by the Board of Selectmen, after considering the appropriateness of the entity and the ability of the Town to assess, bill and collect charges for water services from the responsible party.

(B) NEW DEVELOPMENTS. When acting upon an application for approval of a multiple-user property under subdivision regulation or site plan review, the Planning Board shall require as a condition of final approval that a responsible party be established and that appropriate binding documents be recorded to reflect the existence and powers of the responsible party. The Planning Board shall obtain the concurrence of the Board of Selectmen in the designation of the responsible party.

Section 4. Billing, Collection and Enforcement.

(A) By accepting water service from the Town both the user and the responsible party are deemed to have accepted and authorized the billing, payment and collection methods established by this regulation. The Town shall bill multiple-user properties according to the user charge ordinance and the responsible party shall be the entity initially responsible for payment, subject to the collection and lien powers set forth in RSA 38:22 and this article.

(B) The allocation of water service charges to individual users shall be determined by the responsible party and the users, but shall be equitable and appropriate, and shall be subject to review by the Board of Selectmen to determine if it will allow reasonable means of collection and enforcement under this regulation, if the responsible party fails to make timely payment.

(C) Unless otherwise specifically approved in writing by the Board of Selectmen, within any multiple-user property, all users and property owners, as well as the responsible party, shall be jointly and severally liable for charges for water service provided to the property. If water charges are not timely paid, the liens for nonpayment under RSA 38:22 shall apply to all real property in the multiple-user property except as otherwise determined by the Board of Selectmen, provided that the Board of Selectmen, before filing notice of any lien against an individual unit not owned by the responsible party, shall provide notice of the delinquency and provide not less than 30 days for payment of the charges and all fees and interest due.

Section 5. Compound Meters. The Town may require, or the responsible party may seek permission for, utilization of a compound water meter that will measure the total amount of water provided to a multiple-user property by the Town and which will also determine the usage of Town water by individual users. The usage of a compound meter shall not alter the liability of the responsible party for payment of the water charges or the joint and several liability of all users and property owners for water service charges unless a waiver has been granted under Section 6.

Section 6. Waiver.

(A) Upon written application by the property owners or water users of a multiple-user property, the Board of Selectmen may grant waivers from one or more of the requirements of this article. Prior to acting upon any such waiver, the Board of Selectmen shall hold a public hearing. Notice of the hearing shall be sent by mail to the

affected parties at least 10 days prior to the hearing and notice shall also be published or posted at least 5 days prior to the hearing.

(B) In acting upon any request for waiver, the Board of Selectmen shall consider:

(1) The recommendation of the Water Works Supervisor.

(2) The effect that the waiver would have on the costs and effectiveness of billing, payment and collection.

(3) The type and form of ownership and usage and the ability of the Town to assess and collect water charges on an individual or other basis.

Section 7. Responsibility for Water Leaks. The responsible party shall be held accountable for identifying and repairing all leaks occurring on the multiple-user property. If the Town incurs any costs in connection with such a leak, the responsible party shall reimburse the Town for all such costs.

ARTICLE 6 – APPLICATIONS FOR USE OF WATER

Section 1. All applications for the use of water shall be made to the Board of Selectmen's office prior to application for any required building permit or before commencing building or site work, whichever is earlier. The permit application shall be supplemented by plans, specifications, or other information considered pertinent in the judgment of the Town. Application fees of \$50 per dwelling unit for a residential use and \$200 per water line serving a nonresidential use (as determined by the Board of Selectmen) shall be paid at the time the application is filed. Payment of application fees shall be deemed to cover routine costs of administration and inspection of facilities and connections. However, the Board of Selectmen may require payment of additional costs where administrative or inspection activities involve substantially more activity than a standard installation.

Section 2. A connection (tap) fee shall also be assessed in accordance with the Town's ordinances. Connection fees shall be paid prior to physical connection of the property to the system or as required by the water connection fee ordinance.

Section 3. All costs and expenses incidental to the installation and connection of the building service shall be borne by the Owner. Cost for review of plans by the Town's engineer, if necessary, shall be borne by the Owner prior to a permit being issued. All fees and costs shall be paid prior to occupancy.

ARTICLE 7 – POLICIES REGARDING CONNECTION TO THE SYSTEM

Section 1. No person, without first obtaining a written permit from the Town, shall use, alter, or disturb any public water main or appurtenance thereto, or uncover any connection with or opening into such a main or appurtenance.

Section 2. No person, except an employee of the Town of Northumberland or an approved subcontractor, shall tap any water main or connect any water service.

Section 3. All new water services on existing streets will, at the Owner's expense, be laid by the Town, or by an authorized subcontractor, from the street water main to the property line where a curbstop will be placed. The Town may, at its option, waive any portion of the cost of construction in the public way if it serves a single family home. The private service from the property line curbstop into the building shall be installed by the Owner at the Owner's expense. The Town shall invoice the new water user for expenses incurred for construction of the new service within the street right-of-way or payment to the subcontractor will be made directly, as determined by the Town. Materials and construction standards shall meet all standards of this required regulation. That portion of the water service on private property shall be maintained by the water user.

(a) Once construction and installation has been completed and approved by the Town, the Town shall be deemed owner of all facilities up to and including the curbstop or gate valve at or near the property line. If there is no curbstop or gate valve, the Town shall be deemed owner to the property line or such other point as the Town designates. In the case of existing service or where ownership has not clearly been designated, the Town shall be deemed owner of the facilities to the curbstop, gate valve, property line, or such other point of any facilities until it accepts responsibility therefor through action by the Board of Selectmen.

Section 4. The Town may shut off water service temporarily whenever it becomes necessary to make extensions, alterations, or repairs and may curtail its use whenever a public emergency so requires. No water user shall be entitled to damages, nor to have any portion of a payment refunded, for any stoppage for the purposes of extensions, alterations, repairs, or emergency curtailment of water. The Town will make a reasonable effort to notify users in writing of planned shut offs.

Section 5. No cross connections with a supply of water from any other source will be allowed, whether for domestic or fire service, unless specific written approval of such connections has been granted by the New Hampshire Department of Environmental Services and the Town.

Section 6. Prior to acceptance of dedication of any facility connected to the water system, the Board of Selectmen shall confirm that the facility conforms to this ordinance. The Board of Selectmen shall have authority to accept such facilities and shall require such documentation of the acceptance, as he deems necessary.

Section 7. The Town may require the Owner to provide a performance bond or other security for performance, in a form and amount satisfactory to the Board of Selectmen, in connection with any work related to the Town's water system. This surety may be in addition to any other surety required under other approvals.

Section 8. Prior to the issuance of any building permit, the Town shall review water use if it is reasonably anticipated that the work envisioned by the building permit would increase water usage. The Board of Selectmen may require reasonable improvements intended to conform to the requirements of this regulation commensurate with the nature of the improvements proposed.

Section 9. For multi-family residential or for commercial construction involving multiple units, an accessible valve with shut-off capability and a meter shall be supplied for each separate user except where the Board of Selectmen determines that separate valves and meters are not required for a multiple-user property under Article 5-A.

Section 10. Prior to the issuance of any certificate of occupancy, the Owner shall submit an as-built plan approved by the Department.

ARTICLE 8 – BUILDING SERVICES AND CONNECTIONS

Section 1. The size, alignment, and construction materials of a building service, and the methods used in excavating, placing of the pipe, jointing, testing, and backfilling the trench, shall conform to this regulation and all other applicable Town regulations. If no Town regulations govern, New Hampshire Department of Environmental Services Standards shall apply.

Section 2. The connection of the building service into the main shall conform to the requirements of the State building and plumbing code, this regulation and any other applicable Town regulations. All such connections shall be made gastight and watertight and verified by proper testing. Any deviation from prescribed procedures and materials must be approved by the Town before installation.

Section 3. The Owner shall notify the Town when the water service is ready for inspection and connection to the public main. The Town shall supervise the connection and testing.

Section 4. All excavations for building service and main installation shall be adequately guarded with barricades and lights so as to protect the public from hazard. Streets, sidewalks, parkways, and other public property disturbed in the course of the work shall be restored in a manner satisfactory to the Town at the Owner's expense. All trenches must be backfilled at the end of each workday. Steel plates may be used if approved in advance and inspected by the Town at the site prior to the close of the workday.

Section 5. Construction shall not block any driveway, street, road or railroad at any time without permission of the Town and other controlling agencies. Every effort shall be made to permit the movement of vehicular traffic at all times. When it is necessary to cross or interfere with roads, walks, or drives, whether public or private, the Owner shall maintain, at his own expense, and subject to the approval of the Town, safe bridges or other means of egress. No trench permit will be issued from November 1st to April 1st except for emergency repairs. Trench permits shall be obtained through the Town or the New Hampshire Department of Transportation, as applicable. Uniformed Police may be required to control traffic at the Owner's expense if the Town determines it to be in the public interest to do so.

Section 6. A separate and independent building water service shall be provided for every new building except where a separate and independent service is not required under Article 5-A.

Section 7. The Owner shall indemnify the Town from any claim, loss or damage that may directly or indirectly arise from the installation of a building service.

Section 8. All water service permits shall become void if the connection is not completed within one year after the date of issuance, unless extended by the Board of Selectmen.

Section 9. No water main or water service shall be placed in the same trench with sewers, gas pipes, electric conduits or other similar structures except by the written permission of the Town.

Section 10. Electrical ground wires shall follow state and national code.

Section 11.

(a) New Connections. The owner shall pay for and install a water meter and required appurtenances for all new service utilizing the Town water system. Service shall not be provided until the meter is installed.

(b) Existing Connections. When required by the Town, the owner of any property connected to the system as of January 1, 1995, which does not have a water meter, shall install a meter and required appurtenances. The Town shall pay for standard installation as determined by the Town. The owner shall pay any costs of installation other than those incurred in standard installations.

(c) Conformity with Requirements. The water meter and all appurtenances shall conform to, and be installed in accordance with, Town specifications and requirements. Meters shall be supplied by the Town at the owner's expense.

Section 12 – Meter Installation – All water meters shall only be installed or removed by licensed master plumbers acting with the Town's consent. Only licensed plumbers can pick up meters from the Town.

Section 13 – Frozen Pipes

In the event that a resident loses water service due to frozen pipes leading from the connection valve with the Town's line to their building or residence, the water supervisor or their designee may investigate the cause. If the cause is found to be negligence, the resident will be fined fifty (\$50) dollars and required to install a new service that conforms to the specifications of this ordinance at their expense.

Section 14 – Voluntary Shut Off/Turn On

Whenever residents wish to have their water voluntarily shut off or turned on at the curb stop, the Town shall perform the service for them. The residents shall be charged \$50.00 plus materials, if needed, to perform the task requested. This does not apply to seasonal shut offs/turn ons; they will be charged \$50.00 per year for a turn on in the spring and shut off in the fall.

Section 15 – Meter Storage

When a voluntary shut off is performed for a resident, the water superintendent or their designee may deem it necessary to have the meter removed. In cases where the shut off is for longer than a few hours, the meter may be stored with the Town until the water is to be turned on. This will primarily be done for seasonal disconnects when residents leave for the winter. Removal of the meter will only be done by a licensed master plumber. The turn on/ turn off charges shall include the actual cost of the removal and storage of the resident's water meter.

ARTICLE 9 – SUBDIVISIONS AND DEVELOPMENTS

Section 1. In this Article, "Development" means (1) a subdivision involving a tract of land, owned or controlled by a person, which has been divided, or which proposes division, for the purpose of sale into 2 or more lots within a continuous period of 5 years, or (2) the construction of an improvement on a tract of land for any purpose including, but not limited to, residential, commercial, agricultural, educational, medical, charitable, civic, recreational and religious uses, the occupancy of which will require water service.

Section 2. The Owner of a development within the area served by the Town water supply system, or within 100' of a water main shall design and install, at his expense, a water distribution system to connect to the public water supply system.

Section 3. (a) If a development is approved by the Planning Board, which is not within the service area or within 100' of a water main, the Planning Board may, when appropriate, require extension of the municipal water system to the subdivision and may require the Owner to pay such appropriate amount of the costs of extension as appropriate under the circumstances. If any development is approved which utilizes a private water system, the system shall meet all standards of this regulation to provide for the possible future connection to the Town's system.

(b) Prior to granting final approval to any development, the Planning Board shall require that the water supply and/or distribution system for the development be approved by the Town (See typicals in Appendix A).

(c) Prior to granting approval of a multiple user property development or subdivision subject to Article 5-A, the Planning Board shall require the designation of a responsible party with appropriate binding documents to be recorded in the Registry of Deeds in accordance with Article 5-A, Section 3 (B).

Section 4. This regulation shall apply to the maintenance of services within developments except as noted.

Section 5. All permit fees, costs of inspection and other fees shall be paid as required by this regulation and other Town ordinances.

Section 6. Prior to issuance of a water connection permit, plans, specifications and design notes shall be submitted to the Selectmen's Office for review and approval. A 30-day review period may be necessary prior to issuance of a permit and commencement of construction.

Section 7. Construction materials shall conform to this regulation as required and approved by the Board of Selectmen.

(a) The Owner shall provide the Town with a signed affidavit that such facilities are free from debt and that all bills for materials, labor, services and other costs and that claims for damages have been satisfied and secured before turning the facilities over to the Town.

(b) The Owner shall provide to the Town a permanent easement not less than 10 feet in width on either side of the main, for the purpose of re-laying, maintaining or repairing said main before the Town will assume responsibility.

(c) The Owner shall agree in writing to pay for all repairs and replacements of defective structures, materials, equipment, etc., during the first year after the date of official acceptance by the Town. The Town may require the Owner to post a bond for this purpose.

(d) The Owner shall bear all costs for the transfer of ownership, including recording fees from the Register of Deeds in Coos County, and for all expenses incurred in complying with this regulation.

Section 8. Granting of an extension of water service to new subdivisions will be made only after a review and determination by the Town's consulting engineers, at the Owner's expense, that the subdivision can be adequately served relative to pressure and quantity of water available.

Section 9. The minimum water pressure during peak demands shall be 20 psi at the curbstop. If the water system cannot supply this requirement, the Town may consider approval of subdivision with a hydropneumatic booster pumping station or booster station with storage tank combinations based on ISO guidelines.

ARTICLE 10 – USE OF TOWN WATER SUPPLY AND SYSTEM

Section 1. No person, except a firefighter for the legitimate purpose of extinguishing fire or other official purpose, shall open any hydrant without consent of the Board of Selectmen.

Section 2. The Town shall not be liable for damages caused by bursting or leakage of pressure boilers or hot water tanks nor for any repairs due to leakage of water from pipes, fixtures, or other appliances on private property.

Section 3. No person shall break, damage, destroy, uncover, deface, or tamper with any structure, appurtenance or equipment, which is part of the Town water system.

Section 4. The Owner shall be liable for damages to the Town's water system from undue backpressure and/or release of hot water or contaminants from any water heating unit or boiler or any other source into the Town system.

ARTICLE 11 – CONSTRUCTION STANDARDS

Section 1. Applicability. The standards for construction materials, procedures and methods established by this regulation apply to new construction and to all repairs, reconstruction and maintenance activities for all water mains and services, both public and private, including those not presently connected to the Town water system, unless expressly exempted by the Board of Selectmen.

Section 2. Water Piping Appurtenances. Construction and installation of water piping, including mains, services and all appurtenances, shall comply with the specifications and requirements stated herein.

2.1 Reference Drawings. Prior to construction, the Owner shall consult with the Department and obtain the Supervisor's approval of the location of the main and water service. Owner shall submit a plan to the Town to show the layout of the work prior to any construction. The plan shall show the specific location of the water piping as approved by the Department.

2.2 As-Built Drawings. Owner shall, at the completion of work, supply the Town with 3 sets of plans showing the as-built location of the water piping and appurtenances. The as-built plans showing the location shall be to an accuracy of plus or minus 0.5 foot in plan view and must show ties of the water main and connection to nearby permanent structures.

2.3 Storage of Water Pipe on Jobsite. Pipe stacked on the worksite must have 4" x 4" timbers below the stack and between each tier to protect pipe and to prevent dirt and debris from entering the pipe. Pipe shall be stacked with spigot ends projecting from the stack in the opposite direction for alternate rows.

2.4 Mechanical Fittings and Accessories. Fittings, valves and hydrants will be stored off the ground in such a manner that they will not collect dirt or rain or be damaged in any way.

2.5 Excavation. Owner shall provide for dewatering, if necessary, to provide a stable and dry trench during periods of construction.

2.6 Installation. Installation of all buried piping shall be in accordance with AWWA standards for installation of cast iron water mains (AWWA C600).

2.7 Laying of Water Pipe. Water pipe must be laid on a minimum 6" bedding of sand and surrounded with a minimum 12" layer of compacted sand or other select materials, which are approved by the Department. A minimum of 3' for compaction around the pipe must be done, however, the Department may require more as needed.

- (a) Whenever it is necessary to deflect pipe from a straight line, either in the vertical or horizontal plane, the amount of deflection allowed shall not exceed that required for making a satisfactory joint and shall be subject to the approval of the Department.
- (b) The interior of the pipe, fittings and valves shall be kept clean, free of debris at all times during storage, and installation or the materials may be rejected by the Department.
- (c) At all times the open ends of pipe shall be closed by temporary watertight plugs or by other approved means. If water is in the trench at the time of installation, the plug shall not be removed until all danger of water entering the pipe has been eliminated. Thrust blocks or similar restraint shall be used at every bend or change of direction of pipe.

2.8 Depth of Bury and Location. The water mains and service connections will be located 6' from the top of finish grade to top of pipe. In the event of conflicts with existing sanitary sewers or sewer lateral crossings, the water main will be offset above these lines by minimum of 18" and the main is to be insulated. Where conflicts exist with storm sewers, culverts and utilities, the water main will be offset below these (See typical in Appendix A).

- (a) State regulation requires water mains and sewer mains, which run parallel to have a 10' horizontal separation.

2.9 Pressure Testing: A pressure test of all main lines is required before any main line will be accepted by the Town.

- (a) After the pipe has been inspected it will have a hydrostatic pressure test of at least 150 psi (or 1.5 x the working pressure if the working pressure exceeds 100 psi). The pressure must hold for one hour and must be witnessed by the Supervisor or his designee.
- (b) Water services longer than 100 feet shall be pressure tested in the same manner.

2.10 Leakage Testing. A leakage test will be held after the successful completion of the pressure test. The test will be conducted at the system's normal operating pressure and will be held for 2 hours. The allowable leakage will be that which is recommended by the American Water Works Association Standards (AWWA C600). The pipe installation will not be accepted until the leakage is less than the number of gallons per hour determined by the formula:

$$L = \frac{SD\sqrt{P}}{1133,200}$$

in which L equals the testing allowance (makeup water) in gallons per hour; S is the length of the pipeline tested; D is the nominal diameter of the pipe in inches; and P is the average test pressure during the hydrostatic test in pounds per square inch. The test section shall not exceed 1000 feet. All entrapped air will be expelled from the pipeline prior to reaching the specified test pressure.

2.11 Disinfection. All water pipe must be disinfected by the Owner. A water sample must be tested for bacteria by a certified lab, with the results sent to the Town. Disinfection procedures shall comply with AWWA Standard and New Hampshire Department of Environmental Services Standards.

2.12 Retaining Glands. A combination of poured concrete thrust blocks and retaining glands must be used on all mechanical fittings. A torque wrench must be used on all fittings to insure proper torque.

Torque Force is: 70 lbs. on set screws
75-90 lbs. on all glands

2.13 Operation of Valves. No person shall operate any valves or curbstops without the express permission of the Town except in emergencies when the Town will be notified as soon as possible.

2.14 Hydrants. Hydrants shall be buried at a depth of no less than 6' and shall be secured by retaining glands and thrust blocks. Each hydrant shall be flushed after installation in the presence of Department personnel.

2.15 Hydrants at Intersections. When a hydrant is located near a street intersection, it shall be connected to the largest water main under either street unless otherwise designated by the Supervisor.

Section 3. Water Main – General. The Owner shall furnish all materials, labor, tools and equipment, and perform all work and incidentals necessary for the installation of the ductile iron water main and appurtenances (pipe, tees, bends, valves and hydrants). The minimum size of the water main shall be 8". Six inch pipe will be used only for hydrant laterals and services. The Town may inspect and approve all work and materials at any time.

3.1 All materials shall be carefully inspected before being installed. All pieces found defective, as determined by the Department shall be removed in a manner that will not cause damage and shall be removed from the job site by the Owner.

3.2 Flushing Main Lines. Owners shall obtain prior approval to flush lines from the Department. Flushing rate should be at least 2.5 F.P.S. and flushing shall continue until discharge is clean and colorless.

3.3 Main Line Valve Location. All main line valves at pipe intersections (including hydrant valves) shall be placed within 2' of the tees. Each main line tee or cross shall have a minimum of 2 valves associated with it, except as allowed by the Town. Valve layout shall be such that a minimum amount of pipe will be placed out of service in case of repair. Maximum main line valve spacing shall be 800 feet. The Town shall approve valve layout. All valves shall have blocking under them to help support the valve.

Section 4. Service Lines. Service lines are to be made up using saddles, which apply to the specific make up of the main line. Stainless steel for asbestos and steel for ductile iron (c.c. threads will be required also on corporation and saddles) not iron pipe thread.

4.1 Service Line Length and Size. A service, which is longer than 60 feet from the main, must be at least one inch to provide adequate flow. Minimum service size shall be three-quarter inch.

4.2 Curb Valve Location. Curb valves shall be set on the street line in town streets and curb boxes shall be in sidewalks or driveways, if possible.

4.3 Tapping Sleeves. Department personnel shall observe all tapping sleeve installations. The Owner shall guarantee the tapping sleeve and valve from leaks for a period of 2 years.

4.4 Duplexes. Duplexes are considered 2 separate units and require 2 separate taps and piping from the water main. Separate curbstops must be installed for each service.

4.5 Meters. The water service to each unit shall be installed in such a manner that it is easily accessible for installation, servicing, and reading of water meters. A separate shut-off shall be installed just prior to the water meter in an easily accessible place.

4.6 Cross Connections. All physical connections between the Town water system and any other source is forbidden. Town personnel shall be allowed access to inspect for cross connections.

4.7 Back Flow Requirements. All new services shall have a backflow preventer installed on the house side of the shut-off valve or meter, if any. Backflow preventer for services one inch or smaller shall be Watts Model 7 or approved equal. Larger service shall have dual check valves, Watts Model 709 or approved equal. The backflow preventers quoted above shall be the minimum requirement. The Town may require the installation of pressure zone devices, air gaps, or other measures necessary to ensure the safety of the water supply from cross-connections, backflow or back siphonage.

4.8 Code Requirements. All water services shall comply with the more stringent of BOCA code or New Hampshire Department of Environmental Services Regulations.

ARTICLE 12 – MATERIAL SPECIFICATIONS

Section 1. Water Mains. Pipe shall meet or exceed AWWA C151 specifications for ductile iron pipe. Double cement lining, seal coating inside and bituminous outside coating shall meet or exceed, AWWA C104. Maximum length shall be 20 feet. Push on joints shall conform to AWWA II. Pipe shall be furnished complete with gaskets and lubricant.

- (a) Class 52 pipe is required for 6” –12” diameters
- (b) Class 51 pipe is required for 14” –24” diameters
- (c) The use of polyvinyl chloride or other non-ductile iron pipe will not be allowed.

Section 2. Valves. Sizes 3 inch through 12 inch gate valves shall be double disc with non-rising stem and conform to or exceed AWWA C500 specifications. Valves shall be mechanical joint on both sides, except for tapping valves, which shall be mechanical joint by flange. Valves shall open to the left. Valves shall have fusion-bonded epoxy coating inside and out.

- (a) Valves shall be metropolitan pattern and be supplied with accessories. Acceptable make: American Darling or equal.
- (b) Reliant seat valves, where specified on drawings shall meet or exceed AWWA c509 specifications. Acceptable make: Waterous Series 500, U.S. Pipe Metroseal, or equal.

Section 3. Valve Boxes. Belled Base: 48 inches, Top: 5 1/4" x 24" or as required with top flange (screw type not acceptable) cover: Marked "WATER". Acceptable makes: E.J.P. or Q.W.P., or equal.

Section 4. Fittings. Fittings shall be ductile iron with mechanical joint and accessories and shall conform to or exceed AWWA, C110 specifications. Fittings will be new, unused, coated, cement lined, and free from rust.

- (a) Mechanical joints and accessories shall meet AWWA C111. Double cement lining, inside coating and bituminous outside coating shall meet AWWA C104. Retainer glands and thrust blocks shall be used to retain joints. Anchor tees are required for use on hydrant branches.

Section 5. Tapping Sleeves: Tapping sleeves shall be either stainless steel or a ductile iron mechanical joint.

Section 6. Water Services: All piping less than 4" shall be copper tubing and shall conform to or exceed ASTM specifications B-88.

- (a) Sizes 3/4" and 1" – American made type "K" soft in minimum 60" coils. Sizes 1-1/2" and 2" – American made type "K" soft. No 1-1/4" services will be accepted.
- (b) Service saddles shall be double strap, epoxy coated with stainless steel hardware Ford FC202 or equal.

Section 7. Brass Fittings. All brass fittings shall meet or exceed AWWA C800 specifications. All corporations and curbstops shall be ball valves. Stop and waste valves are not permitted. Acceptable makes: Ford, Hayes or equal. Compression pack joints only shall be used.

Section 8. Hydrants. Acceptable make: American Darling, Model #B-84-B or other make acceptable to the Town.

Hydrant features:

- Direction to Open: Left
- Breakable Flange (Traffic Model)
- Valve Opening 5 ¼"
- Two 2-1/2" NST hose nozzle
- One 4-1/2" NST pumper nozzle
- Operating nut and nozzle caps: NS #7 Pentagon
- 1-1/2" Flat to point
- Depth of trench 6' minimum to top of lateral pipe
- Six inch mechanical joint connection (with accessories)

Section 9. Alternate Items. The Town reserves the right to require a sample for evaluation of any item supplied. Alternate items must receive prior approval of the Department or they will not be accepted. The Town may allow the use of any other materials on an experimental or trial basis, but the Owner shall obtain consent of the Town in writing before installing any such material.

ARTICLE 13 – VIOLATIONS

Section 1. Any person found violating this regulation shall be served by the Town with written notice stating the nature of the violation and providing a reasonable time limit for the satisfactory correction thereof. The offender shall, within the period of time stated in such notice, permanently cease all violations.

Section 2. In case of violation by any water user of any provision of this regulation, the user's water supply may be discontinued by the Town after such notice as is appropriate for the circumstances. The water shall not be turned on again until the violation is remedied to the satisfaction of the Town. The water user shall be charged \$100 to restore the water service.

Section 3. In addition to action under Section 1 and 2, the Town may seek injunctive relief and/or authority to act on private property as necessary.

Section 4. The Town may also prosecute any violators under all applicable provisions of State law.

ARTICLE 14 – VALIDITY

Section 1. The invalidity of any section, clause, sentence or provision of this regulation shall not affect the validity of any other part of this regulation.

ARTICLE 15 – ADMINISTRATION FOR BACKFLOW CONTROL RULES

Section 1. The Northumberland Water Department will operate a cross-connection control program, to include the keeping of necessary records, which fulfills the requirements of the Department's Backflow Control Rules and is approved by the Department.

Section 2. The owner shall allow his property to be inspected for possible cross-connections and shall follow the provisions of the Northumberland Water Department's program and the Department's rules, if a cross-connection is permitted.

Section 3. If the Northumberland Water Department requires that the public supply be protected by containment, the owner shall be responsible for the water quality beyond the outlet end of the containment device and should utilize fixture outlet protection for that purpose.

Section 4. The owner may utilize trained or experienced personnel to assist him in the selection of proper fixture outlet devices, and the proper installation of these devices.

Section 5. Both the Northumberland Water Department and the owner shall attempt to eliminate all cross-connections.

ARTICLE 16 – RESPONSIBILITIES

A. Northumberland Water Department

1. On new installations, the Northumberland Water Department will provide an onsite, evaluation and/or inspection of plans in order to determine the type of backflow preventer, if any, that will be required, will issue a permit, and perform inspection and testing. In any case, a minimum of a dual check valve will be required in any new construction.

2. For premises existing prior to the start of this program, the Northumberland Water Department will perform evaluations and inspections of plans and/or premises and inform the owner by letter of any corrective action deemed necessary, the method of achieving the correction, and the time allowed for the correction to be made. Ordinarily ninety (90) days will be allowed. However, this time period may be shortened depending upon the degree of hazard involved and the history of the device(s) in question.

3. The Northumberland Water Department will not allow any cross-connection to remain unless it is protected by an approved backflow preventer for which a permit has been issued and which will be regularly inspected to insure satisfactory operation.

4. The Northumberland Water Department shall inform the owner, by letter, of any failure to comply by the time of the first re-inspection. The Northumberland Water Department will allow an additional (15) days for correction. In the event the owner fails to comply with the necessary correction by the time of the second re-inspection, the Town Water Department will inform the owner, by that the water service to the owner's premises will be terminated within a period not to exceed (5) days. In the event that the owner informs the town Water Department of extenuating circumstances as to why the correction has not been made, a time extension may be granted by the town Water Department, but in no case will exceed an additional (30) days.
5. If the Town Water Department determines at any time that a serious threat to the public health exists, the water service will be terminated immediately.
6. The Town Water Department shall begin initial premise inspections to determine the nature of existing hazards and corrections to be made, following approval of the program by the Department. Initial focus will be on high hazard industries and commercial premises.
7. The Town Water Department shall have on its staff a person who is a certified backflow prevention device inspector.

B. Owner

1. Owner shall be responsible for the elimination or protection of all cross-connections on his premises.
2. The owner, after having been informed by a letter from the Town Water Department, shall at his expense, install, maintain, and inspect or have inspected, any and all backflow preventers on his premises.
3. The owner shall correct any malfunction of the back flow preventer which is revealed by periodic inspecting. This shall include the replacement of parts or the replacement of the backflow preventer, if deemed necessary by the Town Water Department.
4. The owner shall inform the Town Water Department of any proposed or modified cross-connections and also existing cross-connections of which the owner is aware, but has not been found by the Town Water Department.
5. The owner shall not install a by-pass around any backflow preventer unless there is a backflow preventer of the same type on the by-pass. Owners who cannot shut down operations for inspecting of the device(s) must supply additional devices necessary to allow inspecting to take place.
6. The owner shall install backflow preventers in a monor and location approved by Town Water Department.
7. The owner shall only install backflow preventers approved by Town Water Department or DES.
8. Any owner having a private well or other private water source, must have a permit if the well or source is cross-connected to Town Water Department's system. Permission to cross-connect may be denied by the

Town Water Department. The owner may be required to install a backflow preventer at the service entrance if a private water source is maintained, even if it is not cross-connected to Town Water Department's system.

9. In the event the owner installs plumbing to provide potable water for domestic purposes which is on the Town Water Department's side of the back flow preventer, such plumbing must have its own backflow preventer installed.
10. The owner shall be responsible for the payment of all fees for permits, annual or semi-annual device inspections, re-testing in the case that the device fails to operate correctly, and second reinspections for non-compliance with Town Water Department or DES requirements.

Degree of Hazard

The Town Water Department recognizes the threat to the public water system arising from cross-connections. All threats will be classified by degree of hazard and will require the installation of approved backflow prevention devices for high and low hazards.

A. Low Degree of Hazard

If backflow were to occur, the resulting effect on the water supply would be a change in its aesthetic qualities. The foreign substance must be non-toxic to human.

B. High Degree of Hazard

If backflow were to occur, the resulting effect on the water supply could cause illness or death if consumed by humans. The foreign substance may be toxic to humans rather from a chemical, bacteriological or radiological standpoint. The effects of the contaminants may result from short or long term exposure.

Permits

The Town Water Department shall not permit a cross-connection within the public water supply system unless it is considered necessary and that it cannot be eliminated.

A. Cross-connection permits that are required for each backflow prevention device are obtained from the Town Water Department. A fee of () dollars will be charged for the initial permit and () dollars for the renewal of each permit.

B. Permits shall be renewed every () years and are non-transferable. Permits are subject to revocation and become immediately revoked if the owner should so change the type of cross-connection or degree of hazard associated with the service.

C. A permit is not required when fixture isolation is achieved with the utilization of a non-testable backflow preventer.

Existing in-use Backflow Devices

Any existing backflow preventer shall be allowed by the Town Water Department to continue in service unless the degree of hazard is such as to supersede the

effectiveness of the present backflow preventer, or result in an unreasonable risk to the public health.

Periodic Testing

- A. Backflow prevention devices shall be inspected and tested at least semi-annually for high hazard devices and annually for low hazard devices.
- B. Periodic Inspections shall be performed by the Town Water Department's certified inspector or his delegated representative. The inspections will be done at the owner's expense.
- C. The inspections shall be conducted during the Town Water Department's regular business hours. Exceptions to this, when at the request of the owner, may require additional charges to cover the increased costs to the Town Water Department.
- D. Any backflow preventer which fails during a periodic inspection will be repaired or replaced. When repairs are necessary, upon completion of the repair the device will be inspected a second time at the owner's expense to insure correct operation. High Hazard situations will not be allowed to continue unprotected, if the backflow preventer fails the inspection and cannot be repaired immediately. In other situations, a compliance date of not more than (30) days after the inspection date will be established. The owner is responsible for spare parts, repair tools, or a replacement device. Parallel installation of two (2) devices is an effective means of the owner insuring that uninterrupted water service during inspections or repair of devices; and is strongly recommended when the owner desires such continuity.
- E. These devices shall be repaired or replaced at the expense of the owner whenever said devices are found to be defective. Tests and repairs shall be recorded on forms approved by the water superintendent; and copies distributed to the owner and water superintendent within () days of the actual test.
- F. Back flow prevention devices will be inspected more frequently than specified in A above, in cases where there is a history of test failures and the Town Water Department feels that due to the degree of hazard involved, additional inspections are warranted. Cost of the additional inspections will be borne by the owner.

Records and Reports

- A. Records – The Town Water Department will initiate and maintain the following:
 - 1. Master files on customer cross-connection inspections and/or tests.
 - 2. Master files on cross-connection permits.
 - 3. Copies of permits and permit applications.
 - 4. Copies of inspection results and summaries supplied to DES.
- B. Reports- The Town Water Department will submit the following DES:
 - 1. A copy of annual inspection reports or summaries.

Fees and Charges

The Town Water Department will publish a list of fees or charges for the following permits:

- A. Fees
 - 1. Inspection Fees
 - 2. Fees for re-inspections

- B. Charges
 - 1. Charges for after hours inspections

Addendum

- I. Residential Dual Check
 - A. Effective the date of acceptance of this Cross-Connection Control Program for Town, all new residential buildings will be required to install a residential dual check valve device immediately downstream of the water meter. Installation of this residential dual check valve device on a retrofit basis on existing service lines will be instituted at a time and at a potential cost to the homeowner as deemed necessary by the Town Water Department.
 - B. The owner should be aware that installation of a residential dual check valve results in a potential closed plumbing system with the residence. As such, provisions may have to be made by the owner to provide for thermal expansion within the closed loop system, i.e., the installation of thermal expansion devices and/or pressure relief valves

- II. Strainers
 - A. The Town Water Department strongly recommends that all new retrofit installations of reduced pressure principle devices and double check valve backflow preventers include the installation of strainers located immediately upstream of the device to prevent fouling of backflow devices due to unforeseen circumstances occurring to the water supply system such as water main repairs, water main breaks, fires, periodic cleaning and flushing of mains, etc. These occurrences may “stir up” debris within the water main that will cause fouling of backflow devices installed without the benefit of strainers.

ARTICLE 17 – ORDINANCE IN FORCE

Section 1. This regulation shall take effect upon its adoption.

Section 2. The Board of Selectmen may amend this regulation, as they deem necessary after public hearing.

Enacted: November 13, 2000

Amended: September 10, 2001

Amended: May 8, 2006

Date: _____

SCHEDULE OF FEES

Residential Permit Application Fee	\$50.00
Commercial Permit Application Fee	\$200.00
Reconnection Fee (after violation)	\$100.00
Water Turn On/ Turn Off (Voluntary).	\$ 50.00
Seasonal Turn On/Turn Off (Voluntary).	\$50.00 per year
Residential Connection to Town System.	Actual Cost
Commercial Connection to Town System.	Actual Cost
Review of Plans by Town's Engineer, If required	Actual Cost
Storage of Meter	No Charge