

HARVARD WATER DEPARTMENT

The following regulations are a part of the contract with every person who takes, purchases, or consumes water, and governs the relation between the Water Department and its consumers. The Board of Water Commissioners shall set fees for the equitable distribution of costs resulting from the programs established herein under MGL Chapter 40, Sections 42-A to 42-1.

All prior and existing rules and regulations are hereby rescinded and these rules and regulations are substituted in place.

A. DEFINITIONS

1. ABUTTER - shall mean one whose property abuts, is contiguous to, or joins at the border or boundary of a public right-of-way in which a main pipe is to be or has been installed.
2. BACKFLOW - shall mean the flow of water or other liquids, mixtures, or substances into the municipal water system from any source other than the intended source.
3. BACKFLOW PREVENTION DEVICE - shall mean a Water Department approved device, which operates as a check valve on the service pipe to prevent any material from being forced or drawn into the municipal water system, thereby contaminating the potable water supply.
4. BOARD OF WATER COMMISSIONERS - Appointed officials who have exclusive charge and control of the water department and water system, subject to all lawful by-laws and to such instructions, rules and regulations as the town may from time to time impose by its vote. They regulate the use of the water and fix and collect just and equitable prices and rates for the use thereof. They develop and oversee the budget and finances of the department.
5. CONSUMER- the individual, firm, or corporation whose name the Water Department has on its books as the party who has applied for water service, or any individual, firm, or corporation who, in fact, uses the water services of the Town of Harvard.
6. CROSS CONNECTION - shall mean any actual or potential physical connection or arrangement between two otherwise separate systems, one of which contains potable water, and the other which contains material of unknown or questionable safety, including water containing any physical, chemical, biological, or radiological substance or matter.
7. CORPORATION STOP- shall mean the valve located at the service main which the Water Department alone may use to turn on or shut off service to the premises.
8. CURB STOP - shall mean the valve located at or adjacent to the Consumer's property line, which the Water Department alone may use to turn on or shut off service to the Premises.
9. DEP - Department of Environmental Protection
10. **DIRECTOR OF WATER OPERATIONS – The Director of the Town of Harvard's Department of Public Works, unless another person is appointed by the Water Commissioners, will serve as Director of Water Operations and have responsibility for the operation of Harvard's municipal water supply. The Director of Water Operations: (1) Administers and manages the department and water system infrastructure using policies of the Board of Water Commissioners, the municipal water supply laws of the Commonwealth, and the regulations of the Commonwealth's Department of Environmental Protection, Department**

of Environmental Management, and the Office of the Inspector General (Chapter 30B);
(2) Reports to the Board of Water Commissioners every two weeks on average; and (3) At all other times, acts under their own judgment and develops and implements strategy for emergency situations as well as day-to-day operations.

11. MAIN - shall mean the supply pipe lay in the street, from which house connections are made.
12. METER - shall mean a device used to measure the quantity of water supplied to the Consumer.
13. OUTSIDEREADER - shall mean the device placed by the Water Department on the outside surface of the Consumer's premises permitting the Water Dept. to determine water consumption based on a meter reading without entering the premises.
14. PREMISES- shall mean the Consumer's property or building(s) thereon to which service is provided.
15. RIGHT OF WAY- The full strip of land designated as a way, consisting of the roadway and any planting strips and sidewalks. A way so designated shall not be available for any private construction.
16. RECORD DRAWINGS- Drawings which show size and location of water main installation, including mains, service lines, tees, elbows, plugs, caps, stubs and hydrants etc., with triangulation ties noted.
17. SERVICE - shall mean a separate household of one or more people, stores, garages, laundries, manufacturing establishments, or in the opinion of the Board of Water Commissioners, whatever constitutes a service shall pay a minimum charge per quarter.
18. SERVICE PIPE - shall mean the pipe running from the main in the street to include a curb stop and curb box at the property line, a shut-off valve, meter and meter connection, usually inside the cellar wall.
19. UTILITY EASEMENT- A right acquired by a public authority or other person for use or control of property for utility or other designated public purpose.

B. LIMITATION OF LIABILITY

1. The Harvard Water Department does not guarantee the consumer a full volume of water beyond optimal service levels, or the required pressure per square inch necessary to effectively operate hydraulic elevators, sprinkler systems, or other appliances, the same being subject to all the variable conditions that may take place in the use of water from the municipal water system.
2. No consumer shall be entitled to damages, or to have payment refunded, for any interruption of supply occasioned either by accident to any portion of the municipal water system, or by shutting off for the purpose of additions or repairs to the municipal water system, or by the stoppage or shortage of supply due to causes beyond the control of the Water Department, including without limitation thereof, drought, earthquake, fire or flood.

3. The Harvard Water Department will not be responsible for damages caused by discolored water resulting from the opening or closing of any gate for repairs, the use of any hydrants, or the breaking of any pipe.
4. The Harvard Water Department assumes no liability for conditions which exist in consumer's pipes and cause trouble coincident to or following the repairs of any main pipe, service pipe, meter, or other appliance belonging to the Water Department.
5. The Harvard Water Department reserves the right at any time without notice to shut off the water in the municipal water system for the purpose of making repairs, extensions, or for other necessary purposes. As far as time permits, the Water Department shall make every reasonable attempt to notify customers. Persons having boilers or other appliances on their premises depending on the pressure in the pipes to keep them supplied with water, are hereby CAUTIONED against danger from these sources, and are required to provide, at their own expense, suitable safety appliances to protect themselves against such danger. In any event, it is expressly stipulated that the Water Department will not be liable for any damage resulting from water having been cut off, either through accident or necessity, but shall only be liable for injury or damage resulting from its failure to use reasonable care during such cut-offs.
6. The Town of Harvard Municipal Water System, the Department and the Town will not be responsible for enhancing the pressure and flow beyond the curb stop.

C. GENERAL

1. The Board of Water Commissioners has the right to restrict the use of water during dry seasons or under any other emergency conditions by declaring a State of Water Supply Conservation in accordance with Chapter 117 of the Town Bylaws.
2. All persons are forbidden to shut off water from any pipe or hydrant of the Water Department without the approval of the Board of Water Commissioners or Director. No person, without the consent of the Director, or other authorized representative, shall open a hydrant, or any other fixture intended only for fire protection, for any purpose other than extinguishing a fire, except a fireman, without PRIOR APPROVAL, for the purpose of practice. ONLY Water Department personnel, or persons authorized by the Water Department, may open hydrants for other approved uses. Where use of water from a hydrant, for a purpose other than extinguishing a fire, has been requested and approved, the usage shall be metered and appropriate rates shall be charged.
3. Any extension of the Town of Harvard Municipal Water System requires a vote of Town Meeting per Article 8 of the March 30, 1974 Harvard Annual Town Meeting. Any eligible person or corporation who desires a water main extension in Harvard must first make a written request to the Water Department to see if there is capacity to supply the water. All Water Department specifications must be followed. Record drawings are required for all main and service installations. All costs, including engineering, are to be the responsibility of the applicant or owner.
4. Specifications will include, but will not be restricted to, the size of the main, services,

valves, and meters, hydrants as needed, loops where beneficial, materials, and testing.

5. No representative of the Water Department has the authority to change or modify said rules, and the Water Department will not recognize or be bound by any claimed change or modification hereof. The rules and regulations of the Water Department may be altered or amended at the discretion of the Board of Water Commissioners, and shall form a part of the contract with every water taker and all persons taking water from the Department shall be deemed to accede to and be bound thereby.
6. The Board of Water Commissioners reserves the right to change or amend these rules and regulations, except for rates and fees, and make additions to them or exceptions to them, at any time without advance notice, and to establish and assess penalties for violations, including the right to suspend water service. Any changes are subject to the public hearing process.
7. The Water Department in no way assumes any responsibility for frozen service lines. Necessary thawing of lines and any repairs are the responsibility of the owner, and bills submitted for these charges are payable upon presentation. No electrical or telephone grounds are allowed on water service lines.
8. The Chairman of the Board of Water Commissioners or in his absence, the Director of Water Operations, may declare voluntary water usage restrictions. Mandatory water usage restrictions or emergencies will be declared in accordance with Chapter 117 of the Town Bylaws or with DEP regulations.
9. Beginning on September 1, 2021, no mechanical in ground irrigation system of any kind may be connected to or supplied by the connection to the Town of Harvard Municipal Water System without approval of the Board of Water Commissioners. Customers wishing to connect a mechanical irrigation system shall make written request to the Board of Water Commissioners for consideration at a properly noticed public meeting of the Commissioners.

D. SERVICE CONNECTIONS

1. Service connections shall be made under the direction of the Director or their representative. No dwelling, house, or other building or structure shall be connected by any service pipe, nor shall any person otherwise use the water supplied by the Water Department, except with the consent of the Director or their representative.
2. Request for water service connections shall be made by in writing by the owner or his agent and must indicate the service required, location of the service and date the service is desired. The estimated cost of such a service may be furnished by the Water Department on request. This cost may include payment for any previously installed curb stops or service connections that are used by the new service. Owner or his agent will be billed for any parts, materials and labor provided.
3. Single-family household connections shall be 1" copper to the meter. In all other cases, owner or his agent (architect, contractor) shall consult with the Director of Water Operations.
4. The Water Department will not allow the water to be turned on to any new service unless all charges due the Water Department have been paid in full.

5. Any required booster pumps and/or reducing valves need prior approval by the Director of Water Operations.
6. Only authorized contractors working under Water Department supervision shall lay any service pipes from the municipal water system to the inside of the basement wall, or such other point on the owner's premises as shall be designated. A suitable place shall be provided for the water meter.
7. All work performed by outside contractors must be approved by the Harvard Water Department. The Department may ask for proof of performance and the Department's decision is final. Inspection will be by the Harvard Water Department or its representative. Contractor will be charged at the current rate for such services. Record drawings of all services will be prepared and kept by the Water Department.
8. Installation shall be at depth, bedding, and other details as specified by the Water Department. Installation shall be performed by, or under the direction of the Department. The Department shall approve the installation before trenching is backfilled.
9. The Water Department in no way assumes any responsibility for re-seeding of lawns or replacement of shrubs damaged in the performance of this work.
9. The Water Department is responsible for the water main and any service line to the curb stop at the property line. The owner shall maintain in good condition all outside service pipes and fittings from the property line through the meter and shall protect same from freezing. Necessary repairs including but not limited to leaks, defective meters and outside lines, including complete service replacement from the property line are the responsibility of the owner, and bills submitted for these charges are payable upon presentation.
10. A fire service line is entirely the responsibility of the owner from connection at the main to any structure.

E. METERS

1. All water services shall be metered, and where there is more than one tenant or occupant on the premises, the meter rates and rules and regulations of the Water Department shall apply to each. In all cases, the deeded owner of the property supplied shall be held responsible for the water rates and all other charges, including that of all tenants or occupants.
2. The Water Department will furnish, install and/or supervise installation, seal and maintain all meters and remote readers. The owner will provide a readily accessible, adequate and proper space or housing, heated if necessary, to protect it from freezing. Original installation of meter and cost of repair or replacement of seals, meters, or remote readers, when damaged by freezing, neglect, tampering or vandalism shall be paid by the property owner. All metering equipment is the property of the Water Department.
3. Meters, readers, and seals may not be removed except by, or under the supervision of Water Department personnel. Only Water Department personnel may remove or replace the seals, which if broken, may indicate the meter has been tampered with.
4. The owner, tenant, or occupant shall not permit unauthorized persons to have access to, or interfere with a water meter, and shall provide for its safekeeping. Failure to comply will result in discontinuance of service.
5. The Water Department is not responsible for leaks on the users' premises. Water

passing through a meter is considered to have been consumed.

6. The Water Department will test, remove, repair and/or replace meters up to a one inch service as a part of regular maintenance. If the meter is over one inch, it will be maintained at the customer's expense.
7. All meters are tested to make sure they work and are accurate prior to installation. The accuracy of the meter of any premise will be tested by the Water Department upon written request of the owner, who shall pay in advance a fee to cover the cost of the test. If, on such test, the meter is found to register over two percent more water than actually passes through it, the meter will be repaired, at Water Department expense, the advance fee will be refunded, and the water bill for the current period will be adjusted in accordance with the result of the test. If, however, it appears that the meter has been registering less water than actually passed through it, the customer will pay for the test, as well as for the additional water used.
8. Upon request, agents or representatives of the Water Department shall be provided access to the premises of a consumer during Water Department business hours, for the purpose of reading meters, inspecting or examining pipes, fixtures, or attachments or backflow devices used by the owner, tenant or occupant. Water service may be discontinued until such access is provided.
9. Each residentially occupied building shall have a separate meter and a separate account. No person shall attach or cause to be attached, a pipe to a metered service pipe or main for the purpose of furnishing water to an unmetered building, except with the written consent of the Board of Water Commissioners.
10. An owner should notify the Water Department if a building is vacant and the owner desires to shut off the water. The owner will be responsible for a turn off charge and a turn on charge if and when the service is reactivated. The owner will be charged a minimum water usage bill each billing period during which if the water is not turned off. The Water Department is not responsible for water used if pipes freeze in a vacant, unheated building. Customer may be charged, based upon an estimate, for any water used and not recorded due to damage to the meter or before the meter.
11. For those consumers having outside recorders, the Water Department will periodically read the inside meter to verify the accuracy of the outside recorder. In case of a discrepancy between the two readings, the inside meter reading will be considered the true reading, and the consumer's bill will be adjusted accordingly.

F. FEES AND RATES

1. The Board of Water Commissioners will establish fees for miscellaneous services provided by the Water Department and rates for water usage. The Commission will hold a public rate hearing before any rate is changed. The Fee and Rate schedule will be published separately.

G. WATER COMPLAINT LOG

1. All complaints concerning the Water System must be made in writing to either the Director of Water Operations or one of the Water Commissioners. At their individual

discretion, the Director of Water Operations or any one of the Water Commissioners may enter a written complaint if any complaint is received verbally.

2. The Director of Water Operations shall keep a copy of all written complaints received and a written record of the resolution.

H. PROTECTION OF WATER SUPPLY

1. The Water Department will take such action as is necessary to protect the water supply serving the Town of Harvard and to ensure that the rules and regulations of the Department of Environmental Protection relating to Public Water Supplies are complied with.
2. No Septic System may be constructed or expanded within the zone of protection of the Town of Harvard Water Supply unless a determination is made by the Water Commissioners that said construction or expansion will not be detrimental to the Water Supply.

I. CROSS CONNECTION CONTROL PROGRAM

I. Purpose

A. To protect the public potable water supply served by the Harvard Water Department from the possibility of contamination or pollution by isolating such contaminants or pollutants which could backflow or back siphon into the public water system.

B. To promote the elimination or control of existing cross connections, actual or potential, between its customers in-plant potable water system, and non-potable water systems.

C. To provide for the maintenance of a continuing program of cross connection control which will effectively prevent the contamination or pollution of all potable water systems by cross connection.

II. Authority

A. As provided for in the Federal Safe Drinking Water Act of 1974, (Public Law 93-523), and the Commonwealth of Massachusetts Drinking Water Regulations, 310 CMR 22.22, the water purveyor has the primary responsibility for preventing water from unapproved sources, or any other substances, from entering the public potable water system.

B. Harvard Water Department, Rules and Regulations, adopted on February 18, 2015, as amended, can be found on the Town of Harvard website.

III. Responsibility

The Water Commission shall be responsible for the protection of the public potable water distribution system from contamination or pollution due to the backflow or back siphonage of contaminants or pollutants. If, as a result of a survey of the premises, the Commission determines that an approved backflow prevention device is required at the town's water service connection or as in-plant protection on any customer's premises, the Commission, or its delegated agent, shall issue a cross connection violation form to said customer to install approved backflow prevention devices. The customer shall, within a time frame determined by the Commission, install such approved device or devices at his/her own expense, and failure or refusal or inability on the part of the customer to install said device or devices within the specified time frame shall constitute a grounds for discontinuing water service to the premises until such device or devices have been properly installed.

IV. Definitions

A. Approved - Accepted by the Harvard Water Commission as meeting an applicable specification stated or cited in this regulation, or as for the proposed use.

B. Approved Backflow Prevention Device or Devices - A testable or non-testable cross connection control device that is approved by the MassDEP for use in Massachusetts.

C. Auxiliary Water Supply - Any water supply, on or available, to the premises other than the purveyor's approved public potable water supply.

D. Backflow - The flow of water or other liquids, mixtures or substances, under positive or reduced pressure in the distribution pipes of a potable water supply from any source other than its intended source.

E. Backflow Preventer - A device or means designed to prevent backflow or back siphonage. Most commonly categorized as air gap, reduced pressure principle device, double check valve assembly, pressure vacuum breaker, atmospheric vacuum breaker, hose bibb vacuum breaker, residential dual check, double check with intermediate atmospheric vent and barometric loop.

E.1. Air Gap - The method of preventing backflow through the use of an unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet supplying water to a tank, plumbing fixture, or other device and the flood level rim of the receptacle. The air gap separation shall be at least twice the internal diameter of the supply pipe discharge line but in no case less than one inch.

E.2. Atmospheric Vacuum Breaker - A device which prevents back siphonage by creating an atmospheric vent when there is negative pressure or sub-atmospheric pressure in a water system.

E.3. Barometric Loop - A fabricated piping arrangement rising at least 35 feet at its topmost point above the highest fixture that it supplies. It is utilized in water systems to protect against back siphonage.

E.4. Double Check Valve Assembly - An assembly of two (2) independently operating spring loaded check valves with tightly closing shut off valves on each side of the check valves, plus properly located test cocks for the testing of each check valve.

E.5. Double Check Valve with Intermediate Atmospheric Vent - A device having two (2) spring loaded check valves separated by an atmospheric vent chamber.

E.6. Hose Bibb Vacuum Breaker - A device which is permanently attached to a hose bibb and which acts as an atmospheric vacuum breaker.

E.7. Pressure Vacuum Breaker - A device containing one or two independently operating spring loaded check valves and an independently operated spring loaded air inlet valve located on the discharge side of the check or checks. Device includes tightly closing shut-off valves on each side of the check valves and properly located test cocks for the testing of the check valve(s).

E.8. Reduced Pressure Principle Backflow Preventer - An assembly consisting of two (2) independently operating approved check valves with an automatically operating differential relief valve located between the two (2) check valves, tightly closing shut-off valves on each side of the check valves plus properly located test cocks for the testing of the check valves and the relief valve.

E.9. Residential Dual Check Valve - An assembly of two (2) spring loaded, independently operating check valves without tightly closing shut-off valves and test cocks. Generally employed immediately downstream of the water meter to act as a containment device.

F. Backpressure - A condition in which the owners system pressure is greater than the supplier's system pressure.

G. Back Siphonage - The flow of water or other liquids, mixtures or substances into the distribution pipes of a potable water supply system from any source other than its intended source caused by the sudden reduction of pressure in the potable water supply system.

H. Commission - The Town of Harvard Water Commission or owner or operator of a public water supply system invested with the authority and responsibility for the implementation of a cross connection control program and for the enforcement of the provisions of the Ordinance.

I. Containment - A method of backflow prevention which requires a reduced pressure backflow preventer or an air gap separation at the meter or property line.

J. Contaminant - A substance that will impair the quality of the water to a degree that it creates a serious health hazard to the public leading to poisoning or the spread of disease.

K. Cross Connection - Any actual or potential connection between the public water supply and a source of contamination or pollution.

L. Cross Connection Violation Form - A violation form designated by MassDEP, which is sent to the owner by the water supplier with copies sent to the plumbing inspector and Board of Health delineating cross connection violations found on the owner's premises and a procedure for corrective action.

M. Department - The Massachusetts Department of Environmental Protection (MassDEP).

N. Design Data Sheet - A form submitted to the supplier of water along with plans for each installation of a reduced pressure backflow preventer or double check valve assembly, or for each change to any such device already installed, describing and showing the details of the specific installation.

O. Health Hazard - An actual or potential threat of contamination to the potable water in a public water system, which, in the opinion of the supplier of water would endanger health.

P. In-Plant Protection - The location of approved backflow prevention devices in a manner, which provides protection of the consumers of water and the potable water system within the premises.

Q. Inspection - An on-site inspection and survey by a qualified individual to determine the existence and location of cross connections and/or the physical examination and testing of an installed backflow prevention device to verify that the backflow prevention device is functioning properly.

R. Inspection and Maintenance Report Form - A report form which is to be used by certified testers to record all pertinent testing information.

S. Owner - Any person maintaining a cross connection installation or owning or occupying premises on which cross connections can or do exist.

T. Owner's Agent - Any person of body designated by the owner to act as his/her representative.

U. Person - Any individual, corporation, company, association, trust, partnership, the Commonwealth, a municipality, district, or other subdivision or instrumentality of the United States, except that nothing herein shall be constructed to refer to or to include any

American Indian Tribe or the United States Secretary of the Interior in his as capacity as trustee of Indian lands.

V. Pollutant - A foreign substance, that if permitted to get into the public water system, will degrade its quality so as to constitute a moderate hazard, or impair the usefulness or quality of the water to a degree which does not create an actual hazard to the public health but which does adversely and unreasonably effect such water for domestic use.

W. Potable Water - Water from any source that has been approved by MassDEP for human consumption.

X. Reviewing Authority - The supplier of water, or the local plumbing inspector, authorized by M.G.L c. 142 and licensed by the Board of State Examiners of Plumbers and Gas Fitters, whichever is responsible for the review and approval of the installation of an approved backflow prevention device.

Y. Supplier of Public Water - Any person who owns or operates a public water system.

Z. Unapproved Source - The source or distribution system for any water or other liquid or substance which has not been approved by the MassDEP as being of safe and sanitary quality for human consumption, including but not limited to any waste pipe, soil pipe, sewer, drain, or non-acceptable potable water system material.

V. Administration

A. The Commission will operate an active cross connection control program, to include the keeping of necessary records, which fills the requirements of MassDEP's Cross Connection Regulations and is approved by MassDEP.

B. The owner shall allow his/her property to be inspected for possible cross connections and shall follow the provisions of the Commission's program and MassDEP regulations.

VI. Requirements

A. Commission

1. On new installations and on any major additions or renovations to existing water service connections, the Commission will provide on-site evaluation and/or inspection of plans in order to determine the type of backflow preventer, if any, that will be required, will issue permit, and perform inspection and testing.

2. For premises existing prior to the start of this program, the Commission will notify the Owner's that the Commission will need access to their premises to schedule and perform a cross connection survey and perform a test if a cross connection device is found during the site visit. The Commission will schedule a time during normal DPW working hours to conduct the cross connection survey and perform a test of device(s) found during the survey. The Commission can also review as-built plans to determine if a cross connection device is present on the premises. If a cross connection device is found to be required then the Commission will issue a cross connection violation form to the Owner detailing any corrective action required, the method of achieving the correction, and the time allowed for the correction to be made. The time period shall depend upon the degree of hazard involved.

3. The Commission 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 tested to insure satisfactory operation.

4. The Commission shall inform the Owner by letter, of any failure to comply, by the time of the first re-inspection. The Commission will allow an additional 15 days for the correction. If in the event the Owner fails to comply with the necessary correction by the time of the second re-inspection, the Commission will inform the Owner by letter, that the water service at the Owner's premises will be terminated within a period not to exceed 5 days. In the event that the Owner informs the Commission of extenuating circumstances as to why the correction has not been made, a time extension may be granted by the Commission but in no case will exceed an additional 30 days.

5. If the Commission determines at any time that a serious threat to public health exists, the water service will be terminated immediately.

6. The Commission will begin initial premise inspections to determine the nature of existing or potential hazards, following the approval of this program by MassDEP. Initial focus will be on high hazard industries and commercial premises.

B. Owner

1. The Owner shall be responsible for the elimination or protection of all cross connection on his/her premises.
2. The Owner shall be responsible for applying for and obtaining all necessary approvals and permits for the maintenance of cross connections and installation of backflow prevention devices.
3. The Owner shall correct any malfunction of the backflow preventer which is revealed by periodic testing.
4. The Owner shall inform the Commission of any proposed or modified cross connections and also any existing cross connections of which the Owner is aware but has not been found by the Commission.
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 operation for testing of the device(s) must supply additional devices necessary to allow for testing.
6. The Owner shall install backflow preventers in a manner approved by the Commission.
7. The Owner shall install only backflow preventers approved by MassDEP.
8. Any Owner of industrial, commercial or institutional premises having a private well or other private water source must have a permit if the well or source is cross connected to the Commission's system. Permission to cross connect may be denied by the Commission. 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 the Commission's system.
9. The Owner of a private well or individual water source serving residential dwellings used for potable water or non-potable purposes will not be allowed a physical connection with the public water supply system.

10. The Owner shall be responsible for the payment of all fees for permits, annual or semi-annual device testing, re-testing in the case that the device fails to operate correctly, and second re-inspection for non-compliance with MassDEP or Commission requirements.

VII. Degree of Hazard

The Commission 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 reduced pressure principle backflow prevention devices or double check valves. The Commission may require a containment device on the water service entrance to any customer who, as a result of unprotected cross connections, could contaminate the public water supply system.

VIII. Existing In-Use Backflow Prevention Devices

Any existing backflow preventer shall be allowed by the Commission 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 public health. Where the degree of hazard has increased, as in the case of a residential installation converting to a business establishment, any existing backflow preventer must be upgraded to a reduced pressure backflow preventer, or a reduced pressure backflow preventer must be installed in the event that no backflow device was present.

IX. Periodic Testing

- A. Reduced pressure principle backflow devices shall be tested and inspected at least semi-annually.
- B. Backflow device testing and inspection shall be performed by a MassDEP certified backflow tester.
- C. The testing shall be conducted during the DPW'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 Commission.

D. Any backflow preventer which fails during a periodic test must be repaired or replaced by a licensed plumber. When repairs are necessary, upon completion of the repair/replacement, the device will be re-tested at the Owner's expense to insure proper operation. High hazard situations will not be allowed to continue unprotected if the backflow preventer fails the test and cannot be repaired immediately. In other situations, a compliance date of not more than 14 days after the test date will be established. The Owner is responsible for spare parts, repair tools, or a replacement device. Parallel installation is an effective means of the Owner insuring that uninterrupted water service remains during testing or repair of devices and is strongly recommended when the Owner desires such continuity.

E. Backflow prevention devices will be tested more frequently than specified above in "A" in cases where there is a history of test failures and the Commission feels that due to the degree of hazard involved, additional testing is warranted. Cost of the additional tests will be born by the Owner.

X. Records and Reports

Records

The DPW will initiate and maintain the following:

1. Master files on customer cross connection tests and/or inspections.
2. Master files on approved cross connection installations.
3. Master files on facilities surveyed and violations found.
4. Master files on correspondences , violation notices and enforcement actions.

Reports

The DPW will submit reports such as: listing of cross connections and respective devices, summary of cross connection inspections and surveys, to the MassDEP upon request.

XI. Fees and Charges

See Water/Sewer Commissions Fee Schedule.

XII. Addendum

A. Residential Dual Check Valve

Effective the date of the acceptance of this Cross Connection Control Program for the Town of Harvard all new residential buildings that will have a service connection to the Town public water supply system 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 Commission.

The Owner must be aware that installation of a residential dual check valve device results in a potential closed plumbing system within his/her residence. As such, provisions may have been made by the Owner to provide for thermal expansion within his/her closed loop system, i.e., the installation of thermal expansion devices and/or pressure relief valves.

B. Strainers

The Commission 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 backflow device. The installation of strainers will preclude the fouling of backflow devices due to both foreseen and unforeseen circumstances occurring to the water supply system such as water main repairs, water main breaks, fires, periodic cleaning and flushing of hydrants and 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.

XIII. Appendix

Forms

1. Backflow Prevention Device Inspection and Maintenance Report
2. Cross Connection Survey Report and Violation Notice
3. Backflow Prevention Device Repair Information and Re-Test Report

**BACKFLOW PREVENTION DEVICE INSPECTION AND
MAINTENANCE REPORT FORM**(Print Clearly)

Initial Test ☐
Annual Test: (DCVA / PVB / SRPVB) ☐
Semi-annual Test (RPBP) ☐


Public Water System Name _____
Facility Name _____, MA _____
City/Town _____ Zip _____
Mailing Address _____
Owner Name/Owner Rep. Name/Contact Person _____

PWS ID# _____
Facility Address _____
Facility Owner Name/Responsible Party _____
City/Town _____ State _____ Zip _____
Phone # _____
Exact location of cross-connection _____

Cross-connection Info: ID # _____

Backflow Preventer Info.:

Make _____ Model _____ Size _____ Serial # _____
Supplemental protection at meter required: ☐ Yes ☐ No Material: ☐ Bronze ☐ Iron ☐ Stainless Steel
Shutoff Valve Type: ☐ Ball ☐ NRS ☐ OS&Y ☐ Butterfly ☐ Other _____
By-pass: ☐ Yes ☐ No Auxiliary Supply: ☐ Yes ☐ No
Installation: ☐ Vertically ☐ Horizontally Installation required by: ☐ State ☐ Local
Are repair parts available on site? ☐ Yes ☐ No Serv. Type: ☐ Domestic ☐ Fire Protec. ☐ Irrigation
Is the installation of this backflow preventer in compliance with the requirements of 310 CMR 22.22(11)? ☐ Yes ☐ No

Test Kit Information	Make _____	Model _____	Serial # _____	Last Calibration _____
 Test Date _____	<input type="checkbox"/> RPBP <input type="checkbox"/> DCVA		<input type="checkbox"/> PVB <input type="checkbox"/> SRPVB	
	1 st Check	2 nd Check	Relief Valve	Air Inlet
	<input type="checkbox"/> Closed Tight	<input type="checkbox"/> Closed Tight	Open at _____ psid	Open at _____ psid
	Held at _____ psid	Held at _____ psid	<input type="checkbox"/> Did not open	<input type="checkbox"/> Did not open
	<input type="checkbox"/> Leaked	<input type="checkbox"/> Leaked	<input type="checkbox"/> Leaked	<input type="checkbox"/> Leaked
Test Result	2 nd Shutoff Valve	<input type="checkbox"/> Closed Tight		
			<input type="checkbox"/> PASS	<input type="checkbox"/> FAIL*

I hereby certify that I have personally tested the above backflow prevention device/assembly in accordance with the method and procedure that I was trained, and the test result is true and shows that the device/assembly is in proper operating condition. (Signatures required)

Backflow Device Test Conducted by a MassDEP Certified Backflow Prevention Device Tester

Backflow Tester Name (Print) _____ MassDEP Cert. ID# _____ Exp. Date _____ Signature _____ Phone# _____

Backflow Device Test Witnessed by a Facility Owner/Representative

Facility Owner/Representative Name (Print) _____ Title _____ Signature _____ Date _____

* If a backflow prevention device failed a test, the following steps are required by the Massachusetts Drinking Water Regulations.

- ✓ The owner of the device must obtain the service of a Massachusetts licensed plumber or a Massachusetts licensed fire sprinkler fitter/contractor to perform the necessary repair within fourteen (14) calendar days of the failure test or from the discovery of the defect as required by the Massachusetts Drinking Water Regulations, 310 CMR 22.22(13)(b). The repaired device must be re-tested by a Massachusetts certified backflow prevention device tester.
- ✓ A Backflow Prevention Device Repair Information & Re-test Report Form must be completed to report the repair(s) conducted and to report the re-test result.



PWS ID# _____


City/Town _____

Facility Information

1. Facility Name (Business, Co., Corp.): _____
2. Facility Address: _____, MA _____
3. Mailing Address: _____
4. Contact Person: _____ Phone # (____) _____
5. Type of facility: ☐ Industrial ☐ Commercial ☐ Institutional
☐ Municipal ☐ Other _____
6. Describe the facility use (i.e. motel, school): _____
7. Size of service connection: _____ inch. Is service connection metered? ☐ YES ☐ NO
8. Is there a supplemental protection at meter required (containment device)? ☐ YES ☐ NO
If YES, what type of backflow device is in use? ☐ Reduce Pressure Backflow Preventer (RPBP)
☐ Double Check Valve Assembly (DCVA)
9. Does this facility require non-interrupted water service? ☐ YES ☐ NO
10. Does boiler feed utilize chemical additives? ☐ YES ☐ NO
If YES, is the boiler protected with a backflow device? ☐ YES ☐ NO
11. Does this facility have an air conditioning cooling tower? ☐ YES ☐ NO
If YES, is the cooling tower protected with a backflow device? ☐ YES ☐ NO
12. Is a water saver in use on condensing lines or cooling tower? ☐ YES ☐ NO
If YES, is the make-up supply line protected with a backflow device? ☐ YES ☐ NO
13. Is process water in use in this facility? ☐ YES ☐ NO
If YES, is the process water "potable" water or "raw" water? ☐ Potable ☐ Raw
Is the process water lines protected with a backflow device? ☐ YES ☐ NO
14. Does this facility have a fire protection system? ☐ YES ☐ NO
If YES, is the fire protection system supplied by a dedicated water line? ☐ YES ☐ NO
What type of backflow device is being used on the fire protection system?
☐ Single swing check valve (SSCV) ☐ Reduce Pressure Backflow Preventer (RPBP)
☐ Double Check Valve Assembly (DCVA) ☐ Other _____
15. Contamination: ☐ Biological (type) _____ ☐ Chemical Compound _____
☐ Other (describe) _____

Violation(s) Found

☐ NO violation(s) was/were found at the time of this cross-connection survey was conducted.

Exact Location of Cross-connection	Degree of Hazard 	Comments
	<input type="checkbox"/> High <input type="checkbox"/> Low	
	<input type="checkbox"/> High <input type="checkbox"/> Low	
	<input type="checkbox"/> High <input type="checkbox"/> Low	
	<input type="checkbox"/> High <input type="checkbox"/> Low	

I certified that the above cross-connection survey findings are true. (Signatures required)

- **Cross-connection Survey Conducted by a MassDEP Certified Cross-connection Surveyor**

CC Surveyor Name (Print) _____ MassDEP Cert. ID# _____ Exp. Date _____ Signature _____ () _____ Phone# _____

- **Cross-connection Survey Witnessed by:** (Facility Owner/Representative)

Facility Owner/Representative Name (Print)	Title	Signature
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Note: • Use the attached table for protection options.

- Provide to the facility owner/representative a copy of this form.

**BACKFLOW PREVENTION DEVICE REPAIR INFORMATION &
RE-TEST REPORT FORM**
(Print Clearly)

Please Note: Prior to repair contact the local Plumbing Dept. or Fire Dept. to find out if a permit is required for the repair of backflow prevention device/assembly.

Backflow Preventer Failed: <input type="checkbox"/> RBPB <input type="checkbox"/> DCVA <input type="checkbox"/> PVB/SRPVB				
Make _____	Model _____	Size _____	Serial # _____	Location _____

• **For Devices Located on Domestic Line:** a Massachusetts Licensed Plumber must conduct the repair of these devices.

MA License Plumber's Name (Print) _____ Plumber License # _____ Expiration Date _____ Signature _____ Date _____

Plumbing Inspector's Name (Print) _____ Plumber License # _____ Expiration Date _____ Signature _____ Date _____

• **For Devices Located on Fire Protection Line:** a Massachusetts Certified Fire Sprinkler Fitter/Contractor must conduct the repairs of these devices.

MA Licensed Fire Sprinkler Installer Name _____ License # _____ Expiration Date _____ Signature _____ Date _____

Repair Date ____/____/____	Check Valve #1	Check Valve #2	Relief Valve
Describe Repair(s) 	<input type="checkbox"/> Cleaned only Part(s) Replaced: <input type="checkbox"/> Disc <input type="checkbox"/> Spring <input type="checkbox"/> Guide <input type="checkbox"/> Pin Retainer <input type="checkbox"/> Hinge Pin <input type="checkbox"/> Seat <input type="checkbox"/> Diaphragm <input type="checkbox"/> O-Rings <input type="checkbox"/> Module <input type="checkbox"/> Other _____	<input type="checkbox"/> Cleaned only Part(s) Replaced: <input type="checkbox"/> Disc <input type="checkbox"/> Spring <input type="checkbox"/> Guide <input type="checkbox"/> Pin Retainer <input type="checkbox"/> Hinge Pin <input type="checkbox"/> Seat <input type="checkbox"/> Diaphragm <input type="checkbox"/> O Rings <input type="checkbox"/> Module <input type="checkbox"/> Other _____	<input type="checkbox"/> Cleaned only Part(s) Replaced: <input type="checkbox"/> Disc, upper <input type="checkbox"/> Disc, lower <input type="checkbox"/> Spring <input type="checkbox"/> O-Rings <input type="checkbox"/> Diaphragm (large) <input type="checkbox"/> upper <input type="checkbox"/> lower <input type="checkbox"/> Diaphragm (small) <input type="checkbox"/> upper <input type="checkbox"/> lower <input type="checkbox"/> Space (lower) <input type="checkbox"/> Module <input type="checkbox"/> Other _____
	Test Kit Information Make _____ Model _____ Serial # _____ Last Calibration _____/____/____		
Test After Repair Re-test Date ____/____/____	DCVA 1 st Check 2 nd Check		Relief Valve Open at _____ psid
	<input type="checkbox"/> Closed Tight <input type="checkbox"/> Closed Tight Held at _____ psid Held at _____ psid <input type="checkbox"/> Leaked <input type="checkbox"/> Leaked		<input type="checkbox"/> Did not open <input type="checkbox"/> Leaked
2nd Shutoff Valve	<input type="checkbox"/> Closed Tight <input type="checkbox"/> Leaked		
Re-test Result	<input type="checkbox"/> PASS <input type="checkbox"/> FAIL*		

I hereby certify that I have personally tested the above backflow prevention device/assembly in accordance with the method and procedure that I was trained, and the test result is true and shows that the device/assembly is in proper operating condition. (Signatures required)

• **Backflow Device Test Conducted by a MassDEP Backflow Prevention Device Tester**

Backflow Tester Name (Print) _____ MassDEP Cert. ID# _____ Exp. Date _____ Signature _____ Phone# _____

• **Backflow Device Test Witnessed by the Facility Owner/Representative**

Facility Owner/Representative Name (Print) _____ Title _____ Signature _____

* If repaired backflow prevention device fails the re-test, it must be repaired and re-test and a Backflow Prevention Device Repair Information & Re-test Report Form must be filling out.

