

THE CORPORATION OF THE TOWNSHIP OF SOUTHGATE

BY-LAW NO. 12-2011

being a by-law to provide for the regulation of the
Municipal waterworks supply system in the Township
of Southgate and for connected premises

WHEREAS section 8 of the *Municipal Act, 2001*, c. 25 ["the Act"] provides that a municipality has the capacity, rights, powers and privileges of a natural person for the purposes of exercising its authority under the Act.

AND WHEREAS under section 11 of the Act a lower tier municipality, except where such sphere is assigned to an upper tier municipality, may pass by-laws respecting matters within the sphere of jurisdiction of Public Utilities, and Public Utilities includes systems for water production, treatment, storage and distribution that are used to provide water services for the public.

AND WHEREAS section 9(1) of the Act provides that sections 8 and 11 shall be interpreted broadly so as to confer broad authority on municipalities to enable them to govern their affairs as they consider appropriate and to enhance their ability to respond to municipal issues.

THE COUNCIL OF THE CORPORATION OF THE TOWNSHIP OF SOUTHGATE HEREBY ENACTS AS FOLLOWS:

Part 1 DEFINITIONS

1.1 Definitions

In this by-law:

"appurtenances" means the machinery, appliances, structures, and other parts of a main structure that are necessary to allow it to operate as intended but that are not considered part of the main structure;

"ASSE" means the American Society of Sanitary Engineering;

"AWWA" means the American Water Works Association;

"Authorized Functions List" means the list of functions and the persons authorized to carry out such functions as set out as Appendix "A" of the By-law;

"auxiliary water supply" means any water source or system, other than the Township's water supply, that may be available in a building or on any property;

"backflow" means the flowing back of or reversal of the normal direction of flow of water;

“backflow prevention device” means a device that prevents backflow;

“building” shall have the same meaning as set out in the *Building Code Act*, as amended, or any successor thereto;

“bulk water user” shall mean any customer who draws water from a pipe located at the Township’s Bulk Water Stations.

“connection” shall mean that part of the water service from its attachment to the main to the property limit of premises.

“contractor” shall mean a person, partnership or corporation who contracts to under the execution of work commissioned by the owner of the Township to install or maintain mains, service mains, services, hydrants and other appurtenances.

“cross-connection” means any actual or potential connection between a potable water supply or system and any source of pollution or contamination and includes any by-pass, jumper connection, removable section of pipe, swivel or changeover device and any other temporary or permanent connecting arrangement through which backflow may occur;

“Cross-Connection Survey Form” means the form set out as Appendix “B” of this By-law;

“CSA Standard” means the document entitled *CAN/CSA-B64.10-94 & Amendments* - Manual for the Selection, Installation, Maintenance, and Field Testing of Backflow Prevention Devices published in 1994 by the Canadian Standards Association, or any successor thereof;

“customer” shall mean any person who enters into a verbal or written contract with the Township to take water from the Township or to receive water related services from the Township.

“developer” shall mean the owner or party specifically named in a Development Agreement or in a Subdivision Agreement.

“Manager” shall mean the Township’s Environmental Services Manager.

“external use of water” shall mean the use of water for any purpose outside the walls of any building located at a municipal address.

“ICI” shall mean with respect to premises that such premises are zoned or legally used for Industrial, Commercial or Institutional purposes.

“Installation Guide” means the installation drawings governing the installation of backflow prevention devices as set out as Appendix “D” of this By-law;

“main” shall mean every water pipe, except water services and portions of private mains as herein defined, installed on the public road allowance or on any other land upon which the Township has obtained easements.

"meter" shall mean the water meter supplied and owned by the Township to measure the quantity of water used by the customer.

"meter pit" shall mean any exterior chamber or pit approved by the engineer for the purpose of containing a water meter.

"multi-residential" shall mean with respect to premises that such premises are zoned or legally used for four or more residential dwelling units.

"municipal address" shall mean a building or buildings identified by a number pursuant to Township of Southgate By-law 82-2006, as amended, or as provided for in any successor by-law thereto.

"occupant" shall include any lessee, tenant, owner, the agent of a lessee, tenant or owner, or any person in possession of premises.

"owner" shall include any person who, or that, is the registered owner of premises when considered in the context of this by-law any such person's legal representatives or agent.

"plumbing system" shall mean the system of connected piping, fittings, valves, equipment, fixtures and appurtenances contained in plumbing that begins, is located and is connected immediately after the meter.

"potable water" means water that is safe for human consumption;

"premises" shall mean any house, tenement, building, lot, block or part of a lot or block in, through, or past which water services run.

"premise isolation" means isolation of the water located within a building or structure from the Township's water supply;

"private main" shall mean a pipe connected to a main and installed on private property and from which more than one service and /or hydrant lateral are or may be connected provided such connections have been approved by the Manager.

"remote read-out unit" shall mean the device installed at a separate location from the water meter and used to record the consumption reading of the meter.

"residential domestic" shall mean with respect to premises that such premises are zoned or legally used for three or fewer residential dwelling units.

"Public Works" or "Environmental Services"

"Selection Guide" means the document *Backflow Prevention Device Selection Guide* set out as Appendix "C" of the By-law;

"service extension" shall mean the portion of a water service pipe from the property line to the meter location, or for a fire service to the exterior wall of a structure, i.e. an extension of a service stub.

"service stub" shall mean the portion of a water service pipe from a main to the property line which will always include one control valve.

"shut-off valve" shall mean the valve on the water service or private main owned and used by the Township to shut off or turn on the water supply from the Township's waterworks distribution system to any premises.

"single detached residence" shall mean a single dwelling which is freestanding, separate and detached from other main buildings or main structures, including a split level dwelling, but does not include a mobile home.

"source isolation" means isolation of the water located within or having flowed through a source or potential source of contamination within a building or structure including a device, machine, water system or the like, from any potable water system;

"structure" means anything constructed or built permanently or temporarily which is provided with a source of potable water;

"subdivider" shall mean the owner or party specifically named in a Subdivision Agreement.

"tester" means a person who is licensed as a tester of backflow prevention devices;

"Test Report" means a report in the form set out as Appendix "E" of this By-law;

"Test Tag" means a tag in the form set out as Appendix "F" of this By-law;

"Township" shall mean The Corporation of the Township of Southgate.

"water" shall mean potable water supplied by the Township.

"water connection" shall mean a piped connection to the Township's water distribution system.

"water distribution system" shall mean mains with connections to feeder mains, feeder mains within subdivision lands, private mains, services, fire hydrants, and shut-off valves and all other appurtenances thereto.

"water related services" shall include but not be limited to those items set out under the heading "Miscellaneous Water Rates and changes" in the Water rates and charges By-law.

"water service" shall mean the pipe and fittings that convey potable water from a main or private main to the meter location on premises, or, for a fire service, to the inside of the exterior wall of a structure.

"waterworks" shall mean any works for the collection, production, treatment, storage, supply and distribution of water, or any part of any such works, but does

not include plumbing to which the *Building Code Act, 1997*, or any amendments thereto apply.

“zone isolation” means the isolation of the water located within an area of a building or structure from any potable water system located within such building or structure.

Part 2 Application and Scope of By-law

2.1 Municipally controlled waterworks

This by-law applies to the Township’s waterworks and to all premises which are connected to, or are to be connected to, the Township’s waterworks and to the owner(s) and occupants(s) of such premises.

2.2 Management and operation of waterworks

The Township’s waterworks system is managed by the Manager and is operated and maintained under such person’s supervision by Township employees duly qualified to operate municipal waterworks.

2.3 Collection of accounts for water and sewer usage

The Township may use its own employees for the reading of water meters, preparation and administration of accounts for water use, and sewage system user charges which are based on the Township’s Water and Wastewater Rates By-law in effect from time to time.

2.4 Collection of all other fees and charges related to waterworks

The Township establishes various fees for Environmental Services and charges relating to its waterworks, other than usage charges, as part of the Waterworks schedules to the Township’s Fees and Charges By-law. Such fees and charges shall be paid at the Township of Southgate.

Part 3 APPLICATION FOR WATER SERVICE

3.1 Water service availability

An owner may apply for a water service if such owner’s premises abut a water main. Where a municipal sanitary sewer system also abuts the premises the owner shall also apply to connect to such sanitary sewer system. The Township shall not supply water to the applicant’s premises unless the premises have been connected to the sanitary sewer system where a sanitary sewer system also abuts the premises.

3.2 Application and payment prior to installation

An owner who wishes a water service shall apply for the same in writing to the Township on a form approved by the Manager before the service connection is installed, and shall pay for such connection including applicable frontage, connection, area-wide water system charges and any other applicable charges at the rates as indicated in the Waterworks schedules to the Township's Fees and Charges By-law.

3.3 Installation- payment required

The installation of a water service will not be scheduled or commenced until the required application has been filed and the required payments have been made.

Part 4 WATER RATES AND CHARGES

4.1 Application for water supply

Before the initial supply of water or any subsequent reconnection to any premises in the Township, the owner shall make written application for the same, and the owner shall be governed by the requirements of this by-law.

4.2 Water usage charges

The water consumed on all premises connected to the Township's waterworks shall be charged for at rates as indicated in the Township's Water and Wastewater Rates By-law in effect and amended from time to time.

4.3 Meter reading and billing

Water meters may be read and accounts shall be rendered monthly, bi-monthly or on any other basis at the discretion of the Township. The bill shall be deemed to be served upon the customer if it is delivered or sent by mail to the premises supplied.

4.4 Late payment charge and overdue notice

When an account is not paid by the due date stated on the bill, a late payment charge, of one and one-half (1.5%) per month will be assessed to the account. The Township may at any time thereafter cause an overdue notice to be mailed reminding the customer of the outstanding account.

4.5 Notice of disconnection

Seven (7) days after an overdue notice is mailed, should the account remain unpaid, the Manager or designated official will deliver or cause to be delivered to the service address, a notice of disconnection advising the customer that unless payment is received within 48 hours, service will be disconnected.

4.6 Non-payment – water shut off – lien

If the customer at any premises omits, neglects or refuses to pay any bill rendered, whether for a water service, meter, service charge or any other monies to which the Township may be entitled in respect of water services to such premises, the Township may, at its discretion, shut off or reduce the flow of the water to the premises. The Township shall provide reasonable notice of the proposed shut off to the owners and occupants of premises by personal service or prepaid mail or by posting the notice on the premises in a conspicuous place. All such charges have priority lien status, and may be collected in accordance with the *Municipal Act, 2001*, and may be added to the tax roll against the property in respect of which the water service was supplied.

4.7 Reconnection – charge

Where it has been necessary to discontinue service as a result of non-payment of an account, a reconnection charge as indicated in the Waterworks schedules to the Township's Fees and Charges By-law may be levied against the delinquent customer's account, in addition to the applicable collection charge.

4.8 Temporary removal & reinstallation of meter – charge

When a customer requests a temporary removal of a water meter from premises, for any reason, the meter removal and reinstallation charge, as indicated in the Waterworks schedules to the Township's Fees and Charges By-law may be applied to such customer's account.

4.9 Change of occupancy – charge

At the time of a change in occupancy of premises connected to the Township's water distribution system, an administrative charge as indicated in the Waterworks schedules to the Township's Fees and Charges By-law may be levied by the Township to new customer to cover the cost of administrative work, and the said charge will be included on the first billing to the new customer.

4.10 Minimum monthly charge – who payable by

The minimum monthly charge for providing and maintaining water supply to a property is applicable to all premises connected to the Township's water distribution system.

4.11 Service installation charge

All water services, except those to lands being developed pursuant to a written development or subdivision agreement with the Township wherein the main is installed, may be installed either on the basis of the Waterworks schedules to the Township's Fees and Charges By-law or on an actual cost incurred basis at the owner's expense, as determined by the Manager having regard to the conditions of installation.

4.12 Meter testing charge

A charge for testing the accuracy of a water meter may be charged based upon the Waterworks schedules to the Township's Fees and Charges By-law.

4.13 Special charges

Where any deviation from prescribed standards requested by an owner is authorized by the Manager the owner shall be charged the actual costs associated with the deviation.

Part 5 OPERATION WATERWORKS

5.1 Conditions on water supply

The Township shall use reasonable diligence in providing a regular and uninterrupted supply and quality of water, but does not guarantee a constant service or the maintenance of unvaried pressure or quality or supply of water and shall not be liable for damages to a customer caused by the breaking of any water service or attachment, or for shutting off of water to repair mains or to tap mains, if reasonable notice of the intention to shut off the water is given.

5.2 Authority for Water Supply

The Township have the sole responsibility, authority, power and capacity to construct, maintain and operate all municipally-owned waterworks plant and equipment within its boundaries serving premises within its jurisdiction, and for establishing the rates to be charged for water delivered to consumers.

5.3 Unauthorized operation of fire hydrants – offence

No person other than a member of the Township's Fire Department, or a person authorized by the Manager for that purpose, shall be permitted to open or otherwise interfere with or operate or take water from any private or Township fire hydrant.

5.4 Unauthorized operation or interference – offence

No person other than a person authorized by the Manager for that purpose shall open or close a valve, water meter, structure, watermain or water service in the water works distribution system.

5.5 Use of water from hydrants

Except for water used for fire fighting, any other use of a fire hydrant for water supply must be approved by the Manager and shall be subject to the terms and conditions, and charges imposed by the Manager.

5.6 Improper use of water from fire service – offence

Any water supplied or made available for any premises for purposes of protection of property or persons from fire or for preventing fires or the spreading of fires shall not be used for any other purpose.

Part 6 WATER SERVICE PIPES

6.1 Installation – by Township – by contractor

All connections shall be installed by the Township and all water services shall be installed by contractors engaged by the owner for the purposes of such installation, except in new land development projects where agreements with the Township require the developer or subdivided to complete connections. The Manager shall approve the service required, the size thereof and the point of connection to the main.

6.2 Installation – to Township specifications – Ontario Building Code requirements

All water services and private mains located within Township property shall be constructed, and if applicable replaced, according to the Township's Municipal Servicing Standards. All water services and private mains located on the private property shall be installed at a minimum depth of two metres (or the Manager has approved installation at a lesser depth when combined with an acceptable installation barrier) and shall be installed and if applicable replaced, in accordance with the Ontario Building Code as revised from time to time and in accordance with good engineering practices and shall be approved by the Chief Building Official. Where the Ontario Building Code is silent the Township's Municipal Servicing Standards shall prevail.

6.3 Installation inspection by Township

All water services and appurtenances installed including those required to be installed by a Township Subdivision or Development Agreement, must be inspected by, and any required testing results shall be approved by the Township as specified in the Township's Municipal Servicing Standards or applicable regulations. The charge for inspection and review of testing shall be as specified in the Waterworks schedules to the Township's Fees and Charges By-law.

6.4 Installation – access for inspection

Any persons authorized or directed by the Manager for inspection of waterworks shall at all times be entitled to enter any premises for the purposes of examining pipes, connections and fixtures which are associated with a water service subject to the provisions of the *Municipal Act, 2001*, as amended.

6.5 Connections to private main and connected to main at two locations (looped system)

No person shall make a connection to a private main which is connected to the Township main at more than one location unless between the point of connection and the meter no further connections are made. This also applies to commercial properties that are split in two or a combination of tenants be it commercial &/or residential mix. One lot is provided one service connection only, unless a second or multiple connections is requested and approved by the Manager in writing.

6.6 Disconnection of service

When a water service is abandoned or no longer in service and no building permit has been obtained for a replacement building on the premises the water service must be disconnected at the main, the main must be plugged, and the curb box and rod must be removed at the owner's expense. All work must be undertaken by a person authorized and approved by the Manager and shall be inspected by the Township. The charge for inspection shall be as specified in the Waterworks schedules to the Township's Fees and Charges By-law.

6.7 Maintenance of connection – Township

All connections shall be maintained by the Township at the Township's expense.

6.8 Maintenance of service extension and private main – owner

Any and all defects to a private main or to any water service other than a connection shall be repaired by the owner of the affected premises. In the event the Township becomes aware of any such defect, and upon the Township providing written notification thereof to the owner, such owner shall repair the defect within seven (7) days of the date of the notification or within such longer time as the Manager permits in writing. If the owner fails to repair the defect within such time period then the Township may turn off the water supply to the premises. If the Township is ordered or if the owner asks the Township to restore the water supply, then the Township may repair the defect and charge the costs incurred by it for the repairs to the owner and collect such cost according to law.

6.9 Operation of shut-off valve

No person, other than persons authorized by the Manager for the purpose shall be permitted to operate the shut-off valve or curb stop to any premises.

6.10 Access to shut-off valves

All shut-off valves and curb stops must be left clear and accessible at all times so that the water in the water service pipe and private mains may be turned off or on as may be found necessary by the Manager or by persons authorized by him.

6.11 Responsibility for protection, water loss, damage

All parts of a water service, other than the connection, to and including the meter shall be property protected from frost and from any other damage at the expense and risk of the owner of the premises being serviced. The owner shall be responsible for any water loss occasioned by a leak in the water service other than the connection, and the charge for such water loss shall be determined by the Manager having regard to the size of the water service, and shall be paid by the owner upon demand by the Township. The Township shall not be held responsible for any damages arising from such leakage.

6.12 Responsibility – vacant and unheated premises

It is the owner's responsibility to shut off the water supply within premises and to drain the piping therein when such premises are left vacant or without heat. The owner or occupant may apply in writing to the Township to have the shut-off valve turned off to stop water supply to the premises. The valve will be turned on only at the owner's requested and in the owner's presence. The owner shall pay for this service at the rate as indicated in the Waterworks schedules to the Township's Fees and Charges By-law.

6.13 Responsibility – water damage

When any premises are left vacant, unattended or without heat, where the water supply has not been shut off, and such premises or its contents suffer damage from a leaking or burst water pipe, the owner or the occupant shall not have a claim against the Township. Should the Township become aware of such leaking or burst pipes, the Township shall turn off the shut-off valve, and the water supply shall be turned on until the Manager considers it advisable.

6.14 Responsibility for frozen pipes – Township – Owner

Thawing out frozen water connections shall be the Township's responsibility. Thawing out frozen water services other than connections and any internal plumbing in premises shall be the owner's responsibility. Where any employee of the Township assists the owner in the thawing of frozen pipes on the owner's premises, all such assistance work will be considered to be at the owner's risk and the owner shall have no claim against the Township by reason of such work.

6.15 Responsibility for Hydrant Maintenance

Any hydrant situated within the road allowance is the property of the Township and shall be maintained by it; Township-owned hydrants located on private property shall be maintained by the Township. Hydrants on premises owned and paid for by any persons other than the Township shall be maintained by such persons through a written agreement with the Township.

6.16 Responsibility to ensure private reservoir

Every owner of premises requiring an uninterrupted water supply because such supply is essential for boiler or similar purposes shall provide such premises with holding tanks or reservoirs to provide an ample supply of water to provide for situations where the Township deems it necessary to shut off the water supply to the premises.

6.17 Renewal of service – Township – Owner

The Township shall renew connections on public property at its expense and to its specifications when:

- (a) such piping is deemed by the Manager to be beyond repair;
- (b) the existing pipe material is lead and supplies a residential domestic premises provided the owner replaces any other part of the water service other than the connection the service extension which contains lead before the Township replaces the connection. Replacement piping shall conform to the specifications of the Township. Replacement pipe shall be the same size as the existing water service or the minimum size for the area. If an owner requests a larger size, the owner shall pay the difference in material cost.

6.18 Access – removal – inspection – fittings

Where a consumer discontinues the use of a water service to premises, or the Township lawfully refuses to continue any longer to supply water to the premises, the Manager or person authorized by the Manager may, at all reasonable times, enter the premises for the purpose of disconnecting the supply of the water and removing from such premises any fittings, machines, apparatus, meters, pipes or other things being the property of the Township in or upon the premises, doing no unnecessary damage.

Part 7 WATER METERS

7.1 Water to be metered –remedy for violation

All water used on premises within the Township, except water used for fire fighting purposes, or water authorized by the Manager for construction or other purposes, shall pass through the meter supplied by the Township for use upon such premises, and in addition to whatever other remedies the Township may have by law in respect to infringement of this by-law, the Township may, upon ascertaining that water has been used which has not passed through the meter of such premises, forthwith, without notice, shut off and stop the supply of water. In the event that premises do not have a meter installed, the owner must request the installation of a meter and if the owner of such premises fails to make such a request then such owner shall pay a flat rate for the use of the water at a rate established from time to time in the Water Rates and Charges By-law and if the Manager reasonably determines that the owner or occupant of premises not serviced by a meter is wasting water then the Manager may shut off or reduce the flow of the water to the premises. The Township shall provide reasonable notice of the proposed shut off to

the owners and occupants of such premises by personal service or prepaid mail or by posting the notice on the premises in a conspicuous place.

7.2 Supply – installation- ownership – replacement

Any applicable water service connection charge as indicated in the Water Rates and Charges By-law before the Township will supply the owner with a meter and the meter must be installed prior to occupancy of premises. The meter shall remain the exclusive property of the Township and may be removed as and when the Township may see fit, upon the same being replaced with another meter.

7.3 Installation – maintenance – repair – access

The Township may shut off or restrict the supply of water to a property if the Township requires access to the property to install, replace, repair, read or inspect a water meter. Any person authorized by the Manager for that purposes has free access, at all reasonable times, and upon notice given as set out in section 7.4 of this by-law, to all parts of every building or other part of altering or disconnecting, within or without the building as he/she considers expedient and for that purpose or for the purpose or for the purpose of protecting or regulating the use of the meter, may set it or alter the position of it.

7.4 Notice required – access

Before shutting off or restricting the supply of water, except where specifically authorized elsewhere in this by-law, the Township shall,

- (a) by personal service or by registered mail, serve the owners and occupants of the premises as shown on the last returned assessment roll of the municipality with a notice of the date upon which the Township intends to shut off or restrict the supply of water if access to the property is not obtained before that date;
- (b) ensure that a copy of the notice described in clause (a) is securely attached to the premises in a conspicuous place.

7.5 No shut off – reasonable effort – gain access

The Township shall not shut off or restrict the supply of water unless it has made reasonable efforts to gain access to the premises and has been unable to gain access within fourteen (14) days after the later of,

- (a) the day the last notice under part (a) section 7.4 of the by-law was personally served;
- (b) the day the last notice under part (a) of section 7.4 of this by-law was mailed; and,
- (c) the day a copy of the notice was attached under part (b) of section 7.4 of this by-law.

7.6 Restoration of water supply – as soon as possible

If the Township has shut off or restricted the supply of water under section 7.3 of this by-law, the Township shall restore the supply of water as soon as practicable after obtaining access to the property.

7.7 Charges – meters – owner to pay

All charges for any of the work and services mentioned in sections 7.3 and 7.6 of this by-law will be determined by the Manager as indicated in the Waterworks schedules to the Township's Fees and Charges By-law and will be paid in full by the owner or the customer, as the case may be.

7.8 Every building metered – Manager's discretion

Premises to which water is being supplied shall be furnished with a separate water meter, supplied by the Township except where non-compliance is authorized by the Manager. Additional water meters, supplied by the Township, may only be installed at the discretion of the Manager.

7.9 Installation to Township Specifications

All water meters, supplied by the Township or the property owner for the purpose of Township metering shall be installed to conform to the specifications of the Township water metering requirements and installation standards to be adhered to is attached in "Schedule A" that may change from time to time.

7.10 Meter location – Manager to consent to change

The location of a meter, when once installed to the specifications of the Township, shall not be changed by any person except with the consent of the Manager.

7.11 Private meters – owner responsible

The Township will not supply, install, inspect or read private water meters, nor will the Township bill consumption on private water meters. Water supply pipes to private meters must be connected to the plumbing on premises after the Township's meter.

7.12 Reading meter –access

The Township and persons authorized by the Manager for that purpose shall be allowed access to premises and be provided free and clear access to the meter where water is being supplied at all reasonable times for the purpose of meter reading and meter inspection. If access to premises, or to a meter, is not provided by the occupant then the provisions of section 7.3 to 7.5 inclusive.

7.13 Leaks must be reported

Any leaks that may develop at a water meter or its couplings must be reported immediately to the Township. The Township is not liable for damages caused by such leaks.

7.14 Interference with meters and the connecting plumbing are not permitted

No person, except a person authorized by the Manager for that purpose, shall be permitted to open, or in any way whatsoever to tamper with any water meter and related meter wiring and ground wiring across the meter and remote reader and connecting plumbing relating to the meter and appurtenances thereto, or with the seals placed thereon, or do any manner of thing which may interfere with the proper registration of the quality of water passing through such meter, and should any person change, tamper with or otherwise interfere, in any way whatsoever, with any water meter placed in on any premises, the Manager may forthwith, without any notice, shut off the water supply to such building or premises, and the water supply shall not be turned on again to such premises without the express consent of the Manager.

7.15 Owner responsible to repair piping

If, in the opinion of the Manager, the condition of the water service pipe and/or valves and of the plumbing system on such piping is such that the meter cannot be safely removed for the purpose of testing, replacing, repairing or testing in place without fear of damage to the water service pipe and valves, the Manager may require the owner or occupant to make such repairs as may be deemed necessary to facilitate the removal or testing of the meter. If, upon notification, the owner does not comply with the Manager's request, then the water supply to the property may be turned off at the shut-off valve during removal, replacement, repair and testing of the meter and the Township shall not be held responsible for any damages to the owner's property arising from such work.

7.16 Non-functioning meter – amount of water estimated

If, for any cause, any meter shall be found to not be working properly, then the amount of water to be charged for shall be estimated on the average reading for the previous twelve (12) months, when the meter was working properly, or, if unavailable or proven inaccurate, the amount of water to be charged for shall be estimated on a daily average when the meter is working properly and the charge for the water for the period during which the meter was not working properly shall be based thereon.

7.17 Meter testing for customer – deposit – conditions

Any customer may, upon written application to the Township, have the water meter at the customer's premises tested for accuracy of registration. Every such application shall be accompanied by a deposit of the fee for testing water meters as set out in the Waterworks schedules to the Township's Fees and Charges By-law. If

the meter is found to register correctly, slow or not to exceed five percent (5%) in favour of the Township when tested at a flow rate of one gallon (4.54 litres) per minute, the customer's deposit shall be forfeited towards the cost of the test. Any additional expense of removing and testing of the meter will be paid for in full by the customer. If the meter is found, when tested to register in excess of five percent (5%) a refund will be made to the customer equal to such excess percentage of the amount of the account for the period of four (4) months prior to such testing of the meter, plus the customer's deposit for the test.

7.18 Meter reading supersedes remote device reading

Where the water meter is equipped with a remote read-out unit of any type and a discrepancy occurs between the reading at the register of the water meter itself and the reading on the read-out device, the Township will consider the reading at the meter to be correct, and will adjust and correct the customer's account accordingly.

7.19 Frozen or tampered with water meters

It is the responsibility of the owner of the property or his assigns including tenant to ensure that the area around a water meter is properly heated to prevent damage to the Township meter. If a meter is tampered with, frozen and / or damaged the Township must be advised as soon as is possible to inspect the meter. The property owner will be responsible for the replacement cost of any meter tampered with or frozen and / or damaged at the rates set in the Waterworks schedules to the Township's Fees and Charges By-law for the new meter and labour installation costs.

7.20 Meter bypass valves

Any customer requiring bypass valves for uninterrupted use during the period of servicing of a water meter will require written approval from the Manager. All costs associated with this installation will be the property owners' responsibility and must be installed in such a manner that it is secured by a seal & tag placed on the valve by the municipality.

Part 8 CROSS CONNECTIONS AND BACKFLOW PREVENTION

8.1 Scope of Part 8

All sections of Part 8 of this by-law apply to existing industrial, commercial, institutional and multi-residential buildings and structures, except buildings of residential occupancies within the scope of Part 9 of Ontario Regulation 350/06 ("the Ontario Building Code").

8.2 Additional scope of Part 8

In addition to and notwithstanding section 8.1, Part 8 of this by-law applies where a condition exists in any building or structure that may be hazardous or detrimental to the potable water supply.

8.3 Cross connection prohibited

No person or owner shall connect, cause to be connected, or allow to remain connected to the Township's waterworks supply or water service or any other potable water system any piping, fixture, fitting, container, appliance, vehicle, machine or the like in a manner which may under any circumstance allow water, waste water or any other liquid, chemical or substance to enter such supply or system, except in compliance with the provisions of this Part 8.

8.4 Backflow prevention device – installation

In addition to section 8.3 and in accordance with all other provisions of the Part, every owner of premises to which the Part applies shall ensure that a backflow prevention device is installed in respect of premise isolation, source and zone isolation in every building or structure where a Township waterworks supply or other potable water exists.

8.5 Auxiliary water supply prohibited

No person or owner shall connect, cause to be connected, or allow to remain connected to the Township's waterworks supply any auxiliary water supply.

8.6 Authorized persons to perform work

Only the persons listed in the Authorized Functions List attached as Appendix "A" to this by-law shall carry out the corresponding functions set out in such List.

8.7 Application of CSA Standard

The installation, maintenance and field testing of backflow prevention devices shall be in accordance with the CSA Standard B 64.10.1 except as otherwise set out in this Part. Wherever the CSA Standard and this Part are in conflict, the provisions of this Part shall prevail.

8.8 Completion and submission of surveys

Every owner of a building or structure of a type set out in sections 8.1 and 8.2 of this Part shall every five years or as otherwise required by the Township, cause to be carried out a survey of the building or structure with respect to all existing cross-connections and all existing and required backflow prevention devices and:

- (a) shall ensure that such survey is carried out on a Cross-Connection Survey Form by a person permitted to do so pursuant to the Authorized Functions List; and,
- (b) shall ensure that the completed Cross-Connection Survey Form is provided to the Township within 14 days of the survey being conducted.

8.9 Backflow prevention devices – testable

Every owner shall ensure that every backflow prevention device required for premise isolation on his or her premises is a testable device and is the proper device to be used pursuant to section 8.10 of this Part.

8.10 Determination of appropriate backflow prevention device

Backflow prevention devices for premise, source or zone isolation shall be determined:

- (a) using the Selection Guide; or
- (b) when the type of cross-connection is not identified in the Selection Guide, by a professional engineer using the CSA Standard.

8.11 Township may specify device

Despite section 8.10 of this Part, the Township may require that a particular backflow prevention device be used in respect of any cross-connection.

8.12 Dual check valve prohibited for premise isolation

Despite section 4.3.4.2(a) of the CSA Standard, a dual check valve device shall not be used for premise isolation.

8.13 Exception where device installed on equipment by manufacturer

Despite section 8.10 of this Part, where a source isolation backflow prevention device has been installed by the manufacturer of equipment, the cross-connection is required to be reviewed to determine if the backflow prevention device meets the requirements of the Selection Guide. These cross-connections are to be indicated on the Cross-Connection Survey.

8.14 Installation of backflow prevention devices

Every person installing a backflow prevention device shall ensure that:

- (a) such device is installed in accordance with acceptable engineering practices and the requirements of the *Ontario Building Code* as amended, this Part, the Installation Guide and the CSA Standard;
- (b) such device is installed in a building or structure:
- (c) such device is located in such a manner so that in the event of backflow the device prevents contamination of the Township's waterworks supply and any other potable water system;

- (d) where such device is installed in respect of premise isolation, such device is located within a maximum of 3.0 metres downstream of the water meter, except where circumstances require the device to be installed up stream of the water meter and such location is to the satisfaction to the Township:
- (e) where such device is installed in respect of premise isolation, all piping between the water meter and such device is clearly labeled "no connection permitted";
- (f) where such device is installed in respect of source or zone isolation, all piping between the point of contamination and the point at which the device is located is labeled "non-potable water" in the case of a fire sprinkler system where the source of water is off the municipal watermains or the internal potable water service which is preferred must have a backflow preventer; and
- (g) where such device is installed in a public pool as defined in the Ontario Building Code as amended, all exposed water piping and chlorine piping within the water treatment service room shall be colour coded by means of:
 - [1] painting the entire outer surface of the piping, or
 - [2] colouring bands at least 25mm (1in) in width that are spaced along the piping at intervals of not more than 1200mm (4ft 1 in)
 - [3] colour coding shall be yellow for chlorine and green for potable water.

8.15 Obligation to maintain

Every owner of property upon which a backflow prevention device is installed shall ensure that such device is in proper working order at all times.

8.16 Testing of devices

Every person who tests a backflow prevention device shall carry out such testing in accordance with this Part and the CSA Standard provided that in addition to the testing methods set out on section 6 of the CSA Standard, test procedures established by the ASSE or AWWA for testing backflow prevention devices may be employed and despite section 6.3.1 of the CSA Standard, every person who tests a backflow prevention device shall enter the results of such test on a Test Report.

8.17 Submission of test reports to Township – attach test tags

Every person who tests a backflow prevention device shall:

- (a) within 14 days of carrying out such test, provide a legible Test Report to the Township in respect of such test; and
- (b) upon completing such test, complete and affix a Test Tag to the device or immediately adjacent to the device in the piping connected thereto.

8.18 Malfunctions – notice to owner and Township

Every person who tests a backflow prevention device shall upon finding that such device is malfunctioning or otherwise not in proper working order, immediately notify the owner of the premises and the Township of such condition.

8.19 Owners testing obligations

Every owner who has one or more backflow prevention devices located on the owner's premises shall ensure that with respect to each device:

- (a) that it is tested by a tester when it is first installed and annually thereafter or when requested by the Township and also when it is cleaned, repaired, overhauled or relocated;
- (b) when such device is tested that a Test Report of such test is provided to the Township within 14 days of the test being conducted; and
- (c) in the event that such device is malfunctioning or otherwise not in proper working order, the device is immediately repaired or replaced.

8.20 Inspections

The Township may at any reasonable time enter onto the property of any owner to inspect for compliance with this Part. Where the Township finds that a condition exists on any property that may allow contamination of the Township's water supply or the contamination of any other potable water system on such property, including any residential building or structure, the Township may:

- (a) order the owner to eliminate the condition and in so doing may prescribe the time period for compliance with such Order; or
- (b) shut off the water supply to the property or any portion thereof until the condition is eliminated.

8.21 Tests, reports and actions required by Township

In addition to any other provision of this Part, the Township may at any time order an owner to conduct tests, provide reports and undertake any other measures required for the prevention of backflow or protection of a cross-connection.

8.22 Extensions of time

Where a test frame is set out in this Part for carrying out any action, the Township may extend the time for compliance beyond the established time frame provided such extension is required and is acceptable to the Township.

8.23 Appendices

Appendices "A" through "G" inclusive and the CSA Standard shall form part of this Part.

8.24 Date of compliance

Installation of Backflow Prevention Devices occurred prior to the date set out below for the degree of hazard determined with reference to the Selection Guide:

- (a) if the degree of hazard is severe the installation deadline date was June 1, 2010
- (b) if the degree of hazard is moderate the installation deadline date was June 1, 2010

Note to Part 8 – not forming part of this By-law

A building permit may be required pursuant to the *Building Code Act* to install a backflow prevention device. The provisions of the Act pertaining to such building permit continue to apply to each installation in addition to the provisions of Part 8 of this By-law. Permits are required for devices as noted in the Cross-Connection Survey Form.

Part 9 USE OF WATER

9.1 Regulations – use of water externally

For the purpose of limiting the consumption of water as necessary:

- (a) the external use of water is permitted:
 - (i) on even calendar dates at all municipal addresses north of and including Main Street north between 7 pm – 9 pm.
 - (ii) on odd calendar dates at all municipal addresses south of and including Main Street south between 7 pm – 9 pm.

- (b) the Manager is authorized to implement at any time any other regulation which the Managers discretion, the Manager considers advisable to limit the external use of water and this authority includes the right to ban completely the external use of water.
- (c) Notice of the implementation of a water use regulation by the Manager and the effective date thereof shall be given immediately in a manner determined by the Manager.
- (d) Upon the announcement of the implementation of a water use regulation by the engineer, no person shall use water except in accordance with the provision of such regulation.

9.2 Regulations – prohibited use of water

No person shall use water for the purpose of heating, refrigeration or cooling of premises or equipment.

9.3 In-ground water irrigation systems

No person shall install an in-ground irrigation system using water supplied by the Township unless such system has been approved in writing by the Manager **and is equipped with the appropriate backflow prevention device.**

Part 10 PROHIBITIONS

10.1 Prohibitions under this by-law

No person shall:

- (a) willfully hinder or interrupt, or cause to be hindered or interrupted, the Township or any of its officers, employees, contractors or agents in the exercise of any power or right conferred by this by-law;
- (b) willfully let off or discharge water so that the water runs to waste out of the waterworks or any plumbing connected thereto;
- (c) being a customer, owner, occupant or inmate of any house, building or other premises supplied with water from the waterworks, improperly waste the water supplied by the Township;
- (d) being a customer, owner, occupant or inmate of any house, building or other premises supplied with water from the waterworks sell or dispose of such water, give it away, permit it to be taken or carried away, or be used or applied to the use or benefit of another without the consent of the Township;

(e) without lawful authority willfully open or close any valve or hydrant, or obstruct the free access to any hydrant, stopcock, valve, chamber or pipe forming part of the waterworks by placing on it any building material, rubbish or other obstruction;

(f) deposit any injurious or offensive matter into waterworks;

(g) willfully alter or tamper with any meter placed upon any service pipe or connected therewith, within or without any building or other place, so as to lessen or alter the amount of water registered on such meter;

(h) lay or cause to be laid any pipe or main to connect with any pipe or main of the waterworks, or in any way obtain or use the water without the written consent of the Township.

(i) use water externally except in accordance with the regulations set out in Part 9 of this by-law.

(j) connect a private water supply system in any manner to the Township's waterworks or any plumbing connected to the Township's waterworks.

Part 11 ENFORCEMENT

11.1 Fine – for contravention

Any person who contravenes any provision of this by-law is, upon conviction, guilty of an offence and is liable to a penalty as provided in the *Provincial Offences Act*.

11.2 Continuation – repetition – prohibited – by order

The court in which the conviction has been entered, and any court of competent jurisdiction thereafter, may make an order prohibiting the continuation or repetition of the offence by the person convicted, and such order shall be in addition to any other penalty imposed on the person convicted.

11.3 Offence –additional –willful damage

Every person who willfully or maliciously damages or causes or knowingly suffers to be damaged any part or component of the waterworks or a meter belonging to the Township is guilty of an offence and on conviction is liable to a penalty as provided in the *Provincial Offences Act*.

Part 12 DELEGATION BY MANAGER

12.1 Manager may delegate

Any authority or power given to the Manager under this by-law may be delegated by the Manager to a qualified member of the Township's Water Department.

Part 13
PREVIOUS BY-LAW REPEALED

13.1 Repeal – previous by-laws

This By-law 12-2011 when placed into force repeals all previous by-laws relating to these matters of the Public Utilities Commission of the former Village of Dundalk and all amendments to such by-laws are hereby repealed.

Part 14
SHORT TITLE

14.1 Short Title

The short title of this by-law shall be the Township of Southgate Water By-law.

Part 15
EFFECTIVE DATE

15.1 Effective Date

This By-law comes into force and effect on the day it is passed.

Read a first, second, and third time and finally passed this 16th day of February, 2011.

"Brian Milne"
Mayor Brian Milne

"Dave Milliner"
Deputy Clerk Dave Milliner

**Township of Southgate Water By-law 12-2011
"Schedule A"**

Water Meter Specifications for the Township of Southgate:

Water Meter Manufacturer: Neptune Technology Group

Water Meter Model #: E-coder R 900i

Specifications on the Backflow Prevention Requirements: per Appendix C

**Specifications on the Pressure Expansion Tank Requirements:
per 2006 Ontario Building Code Article 7.6.1.16**

**Specifications on the Shut-off valve installed before the Water Meter:
per 2006 Ontario Building Code Article 7.6.1.3**

Installation Inspection of Water Meters installed by Contractors

Water meters and supporting hardware as is specified above and is being installed by a contractor other than the Township's staff or the direct manufacturer must be inspected by the Township's Staff upon completion of work for compliance and tagging with seals. Failure to comply will restrict the supplying of water to the same property until inspection has been completed.

APPENDIX "A" of By-law 12-2011
AUTHORIZED FUNCTIONS LIST

ITEM	FUNCTION	Professional Engineer with Tester's Licence	* Certified Engineering Technologist with Tester's Licence	Licensed Master Plumber with Contractor and Tester's Licence	** Journeyman Plumber with Tester's Licence	*** Apprentice Plumber with Tester's Licence	Fire System Sprinkler Fitter with a Tester's Licence	Lawn Irrigation System Installer with Tester's Licence	Certified Waterworks Operator with Tester's Licence
1	Carry out Cross Connection Survey	✓	✓	✓	✓				✓
2	Install, Relocate or Replace Backflow Prevention Device			✓	✓	✓			
3	Repair of Backflow Prevention Device	✓	✓	✓	✓	✓			✓
4	Test Backflow Prevention Device	✓	✓	✓	✓	✓			✓
5	Items 1, 2, 3 & 4 above in Respect of Fire Protection Systems						✓		
6	Items 3 & 4 above in Respect of Lawn Sprinkler Systems							✓	✓
7	Completing Installation & Repairs of Water Meters			✓	✓				✓

* Required to be under the direction of a Professional Engineer.

** Required to be employed by a Licensed Plumbing Contractor.

*** Required to be employed by a Licensed Plumbing Contractor and under the direct supervision of a Journeyman Plumber or Master Plumber.

APPENDIX "B" of By-law 12-2011

CROSS-CONNECTION SURVEY Plumbing System Fire Protection System								Date (Y/M/D)
								Page #
Facility:		Address:		Owner:		Report Given to:		
Surveyor:		License #:		Phone #:				
	Location of Cross-Connection	Existing Protection Type	Serial # (If Applicable)	Date of Last Test (If Applicable)	Acceptable Protection Yes/No	Required Upgrade	SELECTION FROM	REMARKS & DEGREE OF HAZARD RATING (Low, Medium or High)
	PREMISE							
	PREMISE							
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
Selection from: S – Two of Southgate Selection Guide P – Professional Engineer *Attach selection documentation M – Manufacturer Supplied Device			AG – Air Gap *AVB – Atmospheric Type Vacuum Breaker *DCAP – Dual Check Valve Type with Atmospheric Port *DCVA – Double Check Valve Assembly Type *DUC – Double Check Valve Type *DUCV – Dual Check Valve Type with Intermediate Vent HCVB – Hose Connection Type Vacuum Breaker			*LACV – Listed Alarm Check Valve LFVB – Laboratory Faucet Type Vacuum Breaker N – None *PVB – Pressure Type Vacuum Breaker *RSCV – Resilient Seated Check Valve *RP – Reduced Pressure Principle Type * – Southgate Water Operations Managers. approval required prior to the installation of these devices		
All selections shall be made in accordance with the Backflow Prevention Regulations – Part 8 of Township of Southgate Water By-law. The Township of Southgate as jurisdiction over all selections. Note: Surveyor required to submit copies of this report to Township of Southgate and owner of property.								

BACKFLOW PREVENTION DEVICE

SELECTION GUIDE

INTERPRETATION

In addition to those terms defined in section 2.0 of Schedule "A", the following terms shall have the corresponding meanings for the purposes of this Appendix:

1. "Air gap (AG)" means the unobstructed vertical distance through air between the lowest point of the water supply outlet and the flood level rim of the fixture or device into which the outlet discharges;
2. "Back siphonage" means backflow caused by pressure below atmospheric in the supply system;
3. "Double check valve assembly (DCVA)" means a backflow prevention device consisting of two force-loaded, independently acting check valves, including tightly closing resilient-seated shutoff valves located at each end of the assembly and fitted with properly located resilient-seated test cocks. This device is designed for use under continuous pressure;
4. "Dual check valve (DuC)" means a backflow prevention device consisting of two independently acting, force-loaded, soft-seated check valves in series. This device does not have a relief port or test cocks. This device is designed for use under continuous pressure;
5. "Dual check valve with atmospheric port (DCAP)" means a backflow prevention device that consists of two independently acting check valves separated by an intermediate chamber with an atmospheric port. A chamber pressure higher than the supply pressure is required to open the port when there is a positive pressure on the supply side. This device is designed for use under continuous pressure;
6. "Dual check valve with intermediate vent (DuCV)" means a backflow prevention device that consists of two independently acting check valves biased to a normally closed position. Between the check valves there is a relief port that is biased to a normally open position. This device is designed for use under continuous pressure;
7. "Reduced pressure principle assembly (RP)" means a backflow prevention device that consists of a mechanically independently acting, hydraulically dependent relief valve located in a chamber between two independently operating, force-loaded check valves, the intermediate chamber pressure always being lower than the supply pressure when there is a positive pressure on the supply side. The unit includes properly located resilient-seated test cocks and tightly closing resilient-seated shutoff valves at each end of the assembly. This device is designed for use under continuous pressure;
8. "Minor hazard" means any cross-connection or potential cross-connection that constitutes only a nuisance, with no possibility of any health hazard;
9. "Moderate hazard" means any minor hazard that has a low probability of becoming a severe hazard;
10. "Severe hazard" means any cross-connection or potential cross-connection involving any substance that could be a danger to health;
11. "Vacuum breaker" means a device that will prevent backflow when pressure in the system upstream of the device falls below atmospheric pressure. Air is only admitted downstream of the device;
12. "Vacuum breaker, atmospheric type (AVB)" means a vacuum breaker designed to be under pressure only when water is being drawn from the system and for short, intermittent periods of time;
13. "Vacuum breaker, hose connection type (HCVB)" means a vacuum breaker consisting of a single force-loaded check valve biased to a normally closed position. Downstream of the check valve is a means of automatically venting to atmosphere that is force-loaded or biased to a normally open position. If there is no flow through the device, the check valve is closed and the vent is open. The device is designed to be under pressure only when water is being drawn from the system and for short, intermittent periods of time;
14. "Vacuum breaker, laboratory faucet type (LFVB)" means a vacuum breaker consisting of two independently acting check valves force-loaded or biased to a normally closed position. Between the check valves there is a relief port that is force-loaded or biased to a normally open position. When the laboratory faucet is off, the check valves are closed and the port is open; when the faucet is on, the check valves are open and the port is closed; and
15. "Vacuum breaker, pressure type (PVB)" means an assembly containing an independently acting check valve force-loaded or biased, to a normally closed position, and an independently operating air inlet valve force-loaded or biased to a normally open position and located on the discharge side of the check valve. The assembly is equipped with properly located resilient-seated test cocks and tightly closing resilient-seated shutoff valves located at each end of the assembly. The device is designed for use under continuous pressure;

REFER TO CHART ON FOLLOWING PAGES

APPENDIX "C" - continued

BACKFLOW PREVENTION DEVICE SELECTION GUIDE

Type of Cross-Connection	Degree of Hazard	MINIMUM Source Isolation Device	MINIMUM Premises Isolation Device
1. Abattoir (slaughter house)	Severe		RP
2. Air compressor oil cooler	Moderate	DCVA	
3. Agricultural chemicals (sprayers)	Severe	AG, RP	
4. Animal watering	Moderate	AVB, PVB, DCVA	
5. Apartment building (within the scope of Part 3 of the Ontario Building Code)	Moderate		DCVA
6. Aspirator (toxic)	Severe	RP, AVB	
7. Aspirator (non-toxic)	Moderate	AVB, LFVB	
8. Autoclave	Severe	AVB, PVB NOTE: Zone RP protection required	
9. Automotive Plant	Severe		RP
10. Automotive repair shop	Severe		RP
11. Autopsy and mortuary equipment	Severe	AVB, PVB NOTE: Zone RP protection required	
12. Baptistry	Moderate	AVB, PVB, DCVA	
13. Basin	Moderate	AG	
14. Bathtub (all)	Moderate	AG	
15. Bedpan washer	Severe	AVB, PVB, NOTE: Zone RP protection required	
16. Bidet	Severe	AVB	
17. Bottle washer	Moderate	AG, AVB	
18. Bottle washer below flood level rim	Severe	RP, PVB	
19. Beverage processing plant	Severe		RP
20. Canopy washer	Severe	AVB, RP	
21. Car wash	Severe		RP
22. Carbonator	Minor	DCAP (stainless steel or plastic)	
23. Chemical feed tank	Severe	AG, RP	
24. Chemical plant	Severe		RP
25. Chiller tank	Severe	AG, RP	
26. Chlorinator	Severe	RP	
27. Clothes washer	Severe	AG, AVB	
28. Coffee machine	Minor	AG, DCAP	
29. College	Moderate		DCVA
30. Commercial coin-operated laundry	Moderate	AG, AVB	
31. Commercial laundry	Severe	RP	
32. Condensate tank (top feed)	Moderate	AG, AVB, DCVA	
33. Condensate tank (bottom feed)	Severe	RP	
34. Cooking kettle	Minor	AG, AVB	
35. Cooling condenser (solenoid upstream)	Minor	DCAP	
36. Cooling condenser (solenoid downstream)	Severe	RP	
37. Cooling tower	Severe	RP, AG	
38. Deaerator (top feed)	Moderate	DCVA	
39. Deaerator (bottom feed)	Severe	RP	
40. Degreasing equipment system	Severe	RP	
41. Deionized water	Severe	RP	
42. Dental Vacuum pump	Severe	RP, AVB, PVB	
43. Dental office	Minor		DCVA
44. Dental high speed hand piece and air and water syringe	Minor	not required	
45. Dental Cuspidor (with internal air gap)	Minor	AG	
46. Dental Cuspidor (no air gap)	Severe	RP, AG	
47. Detergent dispenser	Severe	AVB, RP	
48. Dish rinse unit with flex hose	Moderate	AG, AVB, DCAP	
49. Dishwasher (commercial)	Moderate	AG, AVB	
50. Distiller	Minor	AG	
51. Dockside marine facility	Severe		RP
52. Dye plant	Severe		RP
53. Emergency Eyewash/Shower - this equipment must be installed upstream of the zone isolation			
54. Fire Protection Systems - General Conditions			
<ul style="list-style-type: none"> - Antifreeze solutions must be water solutions of pure glycerin (C.P. or U.S.P., 96.5% grade) OR propylene glycol conforming to Section 3-5.2.1 of NFPA-13, 1994 Edition. These are best described as food-grade chemicals. - Antifreeze solutions must be tested to verify compliance with above conditions. Any other antifreeze solution is NOT permitted and must be replaced - Expansion chambers shall be of an appropriate size to compensate for thermal expansion of antifreeze solution. - An adequate amount of piping before or after the location of any backflow prevention device shall be increased in size to compensate for the pressure loss created by the device being installed. The flows are to be in accordance with NFPA-13 for the appropriate hazard classification in the area downstream of the backflow prevention device. 			
55. Wet sprinkler system			listed alarm check valve, DCVA
56. Wet stand pipe system			resilient-seated check valve, DCVA
57. Wet sprinkler or stand pipe system containing anti-freeze with listed alarm check valve			DCVA + Expansion tank/chamber
58. Wet sprinkler or stand pipe system containing anti-freeze without listed alarm check valve			RP + Expansion tank/chamber
59. Dry sprinkler or standpipe system			No protection

BACKFLOW PREVENTION DEVICE SELECTION GUIDE

Type of Cross-Connection	Degree of Hazard	MINIMUM Source Isolation Device	MINIMUM Premises Isolation Device
60. Fire Hydrant			No protection
61. Fire Service main connected to more than one of the following different sources of supply:			RP
62. City water supply system			
63. a private water supply system or			
64. a source of non-potable water			
65. Flexible shower head	Minor	AVB	
66. Floor drain with flushing rim	Severe	AG, RP	
67. Flush tank	Moderate	AG, AVB	
68. Flushing equipment device	Severe	AG, AVB, PVB	
69. Flushometer	Severe	AVB	
70. Food processing plant	Severe		RP
71. Fountain, ornamental	Moderate	AG, AVB, PVB, DCVA	
72. Fountain, ornamental (chemical added)	Severe	AG, AVB, PVB, RP	
73. Funeral Home	Severe		RP
74. Garbage disposal unit	Severe	AVB, PVB, RP	
75. Garbage can washer	Severe	AG, AVB, PVB, RP	
76. Heating System (copper/plastic; no chemicals)	Minor	DCAP	
77. Heating System (no chemicals added)	Moderate	DCVA	
78. Heating System (chemicals added)	Severe	RP	
79. Hose bib	Moderate	HCVB	
80. Hospital (non-treatment area)	Moderate		DCVA
81. Hospital (active treatment area)	Severe		RP
82. Hot tub	Moderate	AG, AVB	
83. Humidifier	Moderate	AG, DCAP	
84. Humidifier with sump	Severe	AG, RP	
85. Hydrotherapy bath	Moderate	AG, AVB	
86. Industrial fluid system	Severe	RP	
87. Irrigation system (chemical injected)	Severe	RP	
88. Irrigation system (pop up head & underground soaker)	Severe	RP, PVB, AVB	
89. Irrigation system (no chemical added)	Moderate	AVB, PVB, DCVA	
90. Lab bench equipment (toxic)	Severe	AVB, LFVB NOTE: Zone RP protection required	
91. Lab bench equipment (non toxic)	Minor	AVB, LFVB	
92. Laboratory	Severe		RP
93. Laboratory Faucet	Severe	LFVB, AVB NOTE: Zone RP protection required	
94. Laundry machine	Moderate	AG, AVB	
95. Laundry tub faucet with hose bib connection	Moderate	HCVB, AVB	
96. Lavatory	Moderate	AG	
97. Lethal substance	Severe	AG, RP	
98. Livestock equipment	Severe	RP	
99. Mall - multi-tenant	Moderate		DCVA
100. Manufacturing Plant (not specified)	Moderate		DCVA
101. Meat Packing plant	Severe		RP
102. Milk processing plant	Severe		RP
103. Mixing tee with steam and water	Moderate	DCVA	
104. Mobile home park	Moderate		DCVA
105. Mop sink faucet with hose bib connection	Moderate	HCVB, AVB	
106. Mortuary or morgue	Severe		RP
107. Office Building	Moderate		DCVA
108. Oil Refinery	Severe		RP
109. Paint manufacturing plant	Severe		RP
110. Penitentiary	Moderate		DCVA
111. Petroleum processing or storage facility	Severe		RP
112. Photo lab sink	Severe	AG, AVB, RP	
113. Pipette washer	Severe	AG, AVB, RP	
114. Plant using radioactive material	Severe		AG
115. Plastic manufacturing plant	Severe		RP
116. Plating shop	Severe		RP
117. Plating tank	Severe	PVB, RP	
118. Pleasure boat marina	Severe		RP
119. Potato peeler	Moderate	AG, AVB	
120. Pressure washer (no aspirator)	Minor	AG, DCAP	
121. Pressure washer (with aspirator)	Severe	AG, RP	
122. Printing plant	Severe		RP
123. Pump primer line (toxic)	Severe	RP, AG	
124. Pump primer line (non-toxic)	Moderate	DCAP, DCVA	
125. Radiator shop	Severe		RP
126. Refinery, petroleum processing	Severe		RP
127. Research building	Severe		RP
128. Residential premises-multi-tenant	Moderate		DCVA
129. Restricted area	Severe		RP
130. Reverse osmosis	Minor	AG (at drain)	
131. Reverse osmosis with chemical cleaning	Severe	RP	
132. School	Moderate		DCVA
133. Serrated faucet	Severe	AVB, LFVB	
134. Sewage treatment plant	Severe		RP
135. Sewage ejector	Severe	AG	

BACKFLOW PREVENTION DEVICE SELECTION GUIDE

Type of Cross-Connection	Degree of Hazard	MINIMUM Source Isolation Device	MINIMUM Premises Isolation Device
136. Sewage pump	Severe	AG	
137. Shampoo sink	Moderate	AVB	
138. Shopping mall	Moderate		DCVA
139. Sizing vat	Severe	AG, AVB, PVB, RP	
140. Solar energy unit	Severe	RP	
141. Solution tank	Severe	AG, RP	
142. Specimen tank	Severe	AG, AVB, PVB NOTE: Zone RP protection required	
143. Steam boiler plant	Severe		RP
144. Steam table	Minor	DCAP, AG	
145. Steam generator	Moderate	DCVA	
146. Steam cleaner	Moderate	DCVA	
147. Sterilizer (condensate cooling only)	Moderate	AVB, DCAP	
148. Sterilizer (connection into chamber)	Severe	RP	
149. Still	Minor	AG (at drain)	
150. Storage Warehouse	Moderate		DCVA
151. Swimming pool	Moderate	AG, AVB NOTE: Zone RP protection required	
152. Swimming pool (direct connection)	Moderate	AVB, PVB, DCVA NOTE: Zone RP protection required	
153. Swimming pool makeup tank	Moderate	AG, AVB, PVB, DCVA	
154. Technical institute	Moderate		DCVA
155. Track-side facilities for trains	Severe		RP
156. Trap primer	Severe	AG, RP, air gap fitting	
157. University	Moderate		DCVA
158. Vegetable sprayer	Moderate	AG, DCAP	
159. Veterinary clinic	Moderate		DCVA
160. Veterinary clinic (special equipment)	Severe		RP
161. Vending machine with carbonator	Moderate	DCAP (stainless steel & plastic)	
162. Vending machine (with filter)	Minor	DCAP	
163. Water closet (tank type)(N/A if constructed after 1995)	Moderate	AVB	
164. Water closet (flushometer type)	Moderate	AVB	
165. Water hauling equipment (non-toxic)	Moderate	AG, DCVA	
166. Water hauling equipment (toxic)	Severe	AG	
167. Water softener, commercial	Minor	DCVA, (AG at drain)	
168. X-ray equipment	Severe	AG, RP	

APPENDIX "D" of By-law 12-2011

INSTALLATION GUIDE

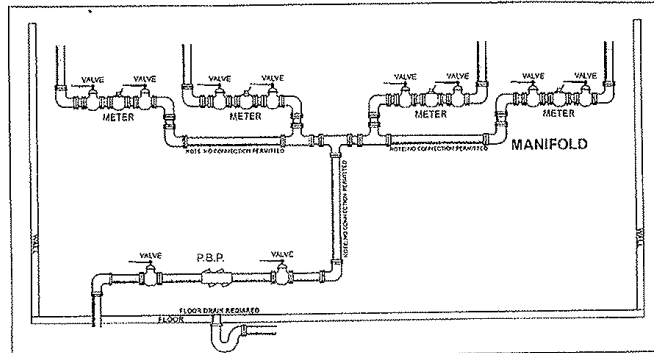


Diagram for units with more than 1 water meter (commercial malls), Zone or source protection must be in compliance with by-law.

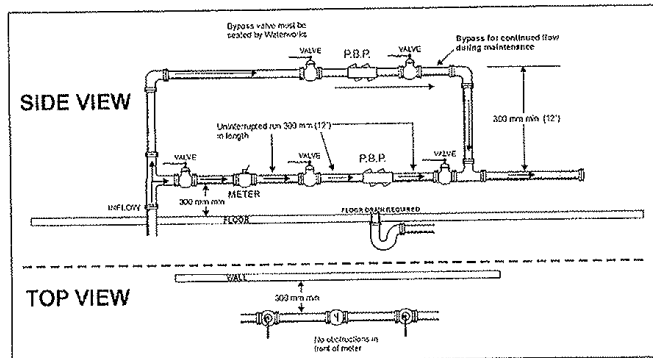


Diagram for Positive Displacement Meters 1½" to 2". Meters must be easily accessible to Watworks staff.

P.B.P. - Premises Backflow Preventer.

APPENDIX "E" of By-law 12-2011



Township of Southgate
Environmental Services
Water Department

APPENDIX "E"

TEST REPORT Reduced Pressure Principle Double Check Valve Assembly/ Pressure Vacuum Breaker

Address Location				Postal Code			
Occupant				Emergency Contact Person			
Owner				Telephone			
Address of Owner				Telephone			
Name of Certified Tester				Tester Certification Number			
Business Name				Business Address			
Make of TEST KIT				Model Number			
Type of ASSEMBLY RP <input type="checkbox"/> DCVA <input type="checkbox"/> PVB <input type="checkbox"/>				Serial Number			
INSTALL DATE YY MM DD				Location of Assembly (ie. Building, room number, installed on what system)			
Premise <input type="checkbox"/> Source <input type="checkbox"/> Zone <input type="checkbox"/>				Antifreeze solution test meets the requirements of NFPA-13, 1994, Section 3-5.2.1? Yes <input type="checkbox"/> No <input type="checkbox"/>			
Device Tagged? Yes <input type="checkbox"/> No <input type="checkbox"/>				Water Works Valve Lock Removed? Yes <input type="checkbox"/> No <input type="checkbox"/>			
TYPE of TEST Initial <input type="checkbox"/> Annual <input type="checkbox"/> Other <input type="checkbox"/>				Date of Test YY MM DD			
Line pressure at time of test _____ Psi				kPa _____			
TEST		Check Valve No. 1		Check Valve No. 2		Pressure Vacuum Breaker	
Differential Pressure Relief Valve <input type="checkbox"/> Failed to Open <input type="checkbox"/> Opened at _____ Psi		With Flow <input type="checkbox"/> Leaked <input type="checkbox"/> Closed tight Pressure drop _____ kPa Across check _____ Psi		Against Flow <input type="checkbox"/> Leaked <input type="checkbox"/> Closed Tight Pressure drop _____ kPa Across check _____ Psi		Air Inlet Valve <input type="checkbox"/> Failed to Open <input type="checkbox"/> Opened at _____ Psi	
		Check Valve <input type="checkbox"/> Leaked <input type="checkbox"/> Closed Tight Pressure drop _____ kPa Across check _____ Psi				TEST RESULTS Passed <input type="checkbox"/> Failed <input type="checkbox"/> Sight Tube Test Passed <input type="checkbox"/> Failed <input type="checkbox"/>	

IF THE ASSEMBLY FAILS THE INITIAL TEST FOR ANY REASON, COMPLETE THIS SECTION AND NOTE REPAIR BELOW:

Reason for Failure (if apparent)							
REPAIRS	REDUCED PRESSURE - DOUBLE CHECK VALVE ASSEMBLY						
	Check Valve No. 1		Check Valve No. 2		Pressure Vacuum Breaker		
	CLEANED <input type="checkbox"/> Disc <input type="checkbox"/> Spring <input type="checkbox"/> Guide <input type="checkbox"/> Pin Retainer <input type="checkbox"/> Hinged Pin <input type="checkbox"/> Seat <input type="checkbox"/> Diaphragm <input type="checkbox"/> Other (describe) _____	REPLACED <input type="checkbox"/> Disc <input type="checkbox"/> Spring <input type="checkbox"/> Guide <input type="checkbox"/> Pin Retainer <input type="checkbox"/> Hinged Pin <input type="checkbox"/> Seat <input type="checkbox"/> Diaphragm <input type="checkbox"/> Other (describe) _____	CLEANED <input type="checkbox"/> Disc <input type="checkbox"/> Spring <input type="checkbox"/> Guide <input type="checkbox"/> Pin Retainer <input type="checkbox"/> Hinged Pin <input type="checkbox"/> Seat <input type="checkbox"/> Diaphragm <input type="checkbox"/> Other (describe) _____	REPLACED <input type="checkbox"/> Disc <input type="checkbox"/> Spring <input type="checkbox"/> Guide <input type="checkbox"/> Pin Retainer <input type="checkbox"/> Hinged Pin <input type="checkbox"/> Seat <input type="checkbox"/> Diaphragm <input type="checkbox"/> Other (describe) _____	CLEANED <input type="checkbox"/> Vent Disc <input type="checkbox"/> Vent Spring <input type="checkbox"/> Proppet <input type="checkbox"/> Retainer <input type="checkbox"/> Spring <input type="checkbox"/> Disc <input type="checkbox"/> Guide <input type="checkbox"/> Other (describe) _____	REPLACED <input type="checkbox"/> Vent Disc <input type="checkbox"/> Vent Spring <input type="checkbox"/> Proppet <input type="checkbox"/> Retainer <input type="checkbox"/> Spring <input type="checkbox"/> Disc <input type="checkbox"/> Guide <input type="checkbox"/> Other (describe) _____	DATE OF RE-TEST YY MM DD
RE-TEST	With Flow <input type="checkbox"/> Leaked <input type="checkbox"/> Closed Tight Pressure drop _____ kPa across check _____ Psi	Against Flow <input type="checkbox"/> Leaked <input type="checkbox"/> Closed Tight Pressure drop _____ kPa across check _____ Psi	With Flow <input type="checkbox"/> Leaked <input type="checkbox"/> Closed Tight Pressure drop _____ kPa across check _____ Psi	Against Flow <input type="checkbox"/> Leaked <input type="checkbox"/> Closed Tight Pressure drop _____ kPa across check _____ Psi	Air Inlet Valve <input type="checkbox"/> Failed to Open <input type="checkbox"/> Opened at _____ Psi	Check Valve <input type="checkbox"/> Leaked <input type="checkbox"/> Closed Tight Pressure drop _____ kPa across check _____ Psi	RE-TEST RESULTS Passed <input type="checkbox"/> Failed <input type="checkbox"/>

Remarks: _____

OFFICE USE ONLY


I certify that I have tested the above assembly in accordance to the Township of Southgate By-Law 87-2006 as amended and C.S.A. 864.10-94.

Signature of Certified Tester _____ Date YY MM DD

COPY DISTRIBUTION: Township of Southgate, Property Owner & Certified Tester

APPENDIX "F" of By-law 12-2011

FRONT OF TEST TAG

<u>APPENDIX "F"</u>			
See SCHEDULE "A" of Township of Southgate By-law Number 87-2006			
			
TEST TAG			
Dundalk Water Works (519) 923-5054		DATE INSTALLED	
BACKFLOW PREVENTION ASSEMBLY TAG		YY	MM DD
ADDRESS			
TYPE OF ASSEMBLY RF DCVA PVB		MANUFACTURER	
		SIZE	
MODEL NUMBER:		SERIAL NUMBER	
LOCATION:			
DO NOT REMOVE			

REVERSE SIDE OF TEST TAG

TEST DATE YY MM DD			TESTER'S COMPANY	TESTER'S NO.	TESTER'S INITIALS
DO NOT REMOVE					

APPENDIX "G" of By-law 12-2011

SEWER & WATER CONNECTION APPLICATION

PURPOSE: ☐ Sanitary Sewer ☐ Storm Sewer ☐ Water Service ☐ Fire Protection Water Service
☐ Industrial Commercial ☐ Residential ☐ Institutional ☐ Irrigation System
☐ New ☐ Replacement ☐ Change of Use / Up-Grade

PROPERTY LOCATION

Street Name		
Number	Lot	Cons Plan
Assessment Roll No.:		

OWNER/ APPLICANT

Name		
Address		
City	Prov.	Postal
Tel:	Fax:	

DESCRIPTION OF THE WORK

Use of Existing Building
Proposed Building Use
Purpose of Work

OFFICE USE ONLY Application Date

Connection Charges:	Rate	Fee
<input type="checkbox"/> Sanitary		
<input type="checkbox"/> Water		
<input type="checkbox"/> Storm		
Frontage Charges:		
<input type="checkbox"/> Sanitary	/m	
<input type="checkbox"/> Water	/m	
<input type="checkbox"/> Storm	/m	
Other:		
<input type="checkbox"/> Work to be charged in accordance with the approved Site Plan Agreement or Development Agreement		
TOTAL FEE		
* Receipt Number		
Approval Agency	Date	
<input type="checkbox"/> Building Department		
<input type="checkbox"/> Engineering Department		
<input type="checkbox"/> Works Department		

FRONT PROPERTY LINE

* All Costs incurred for work performed by the Township of _____ is the responsibility of the owner / applicant and shall be charged on the basis of time and material and deducted from the deposit.

LOCATION PLAN - To be completed by Applicant

- * Indicate location of existing and proposed Buildings, (type), Trees, Roads and Driveways.
- * Indicate Physical Characteristics of Road, within 10 metres of proposed Service location.
- * Indicate the existing service and utility connections.

REQUIRED INSPECTIONS

- | | |
|-------------------|-----|
| 1 Verify Location | [] |
| 2 Backfill | [] |
| 3 Final Grading | [] |
| 4 Other | [] |

☐ Sanitary: Diameter Pipe Length

☐ Water: Diameter Pipe Length

☐ Storm: Diameter Pipe Length

Remarks:

The undersigned hereby applies for a permit to add, alter, install a sewer / water connection in accordance with the information shown on this application and supplied in the plans and specifications filed and agrees that the issuance of a permit does not relieve the owner / applicant of the responsibility to comply with all relevant municipal and provincial standards, by-laws, codes and applicable legislation. It is understood that all works will be constructed, altered, maintained or operated at the expense of the undersigned and for the owner, and that work shall not begin before a permit has been issued by the Township.

I/we, the applicant(s), our heirs, executors, administrators, successors and assigns hereby agree to observe, keep and perform and be subject to the regulations and conditions of the said permit and to indemnify and save harmless the Township and its employees, from and against all loss, cost, charges, damages, expenses, claims and demands whatsoever to which we may be put or which the Township of _____ may be liable by reason of anything done or omitted to be done in the construction, maintenance, alteration or operation of the works authorized.

OWNER or AUTHORIZED APPLICANT

DATE

Office Use Only

Date Application Approved	Work Order Date
Date Service Installed	Date Work Completed
Township Costs Incurred	Amount of Invoice/ Refund:
Date Invoice / Refund Voucher Issued:	Approved By:

☐ Billing Dept: Acct #: Cust. #: Cycle: Route: Walk: Bill Code:
 Water service connection PERMIT.doc Copies to: Building / Works / Engineering / CW Hydro