

Document 1

	Toronto	Hamilton	London	Markham	Waterloo	Halton	Barrie	St Thomas	Peterborough
Population ¹	2,615,060	519,949	366,151	301,709	98,780	501,669	187,013	37,905	118,975
Type of Program	Premise	Premise	Full	Full ²	Full	Premise	Full	Premise	Full
Year Initiated Program	2008 ³	2010	1998	2007 ⁴	2010	2005	2009	2006	2012
Current Program Stage	Initial	Initial	Severe done, starting moderate	Initial ⁵	Initial	Initial/resurveying ⁶	Initial	Severe complete, moderate in progress	Resurveying
Date of Completion	Dec 31 2008-Dec 31 2010 depending on industry sector/level of hazard	May 1 2012	Unknown	2016	2016	2014	2014-2019	Ongoing	
By-Law No.	Water Supply By-law CH 851	10-103	W-8	2012-27	2010-040	61-11	2010-102	44-2000	No By-law, administered by Peterborough Utilities Group ‘Practice’
# Facilities Expected	30,000+	8,600	~10,000	2,500-3,000 ⁷	3,000	8,500	2,700	300+	1,560
# Devices Expected	60,000+	11,500	~18,000	5,00-6,000	7,500	11,000	9,000	300+	3,200
# Staff	5 FTE but group has other responsibilities, work estimated to be equivalent to 3 FTE	2 FTE	2 FTE, 4-5 plumbing inspectors also involved	1 FTE + 1 PT ⁸	2 FTE: 1 Backflow Prevention Officer, 1 Admin Staff	2 FTE	1 FTE Admin, 1 PT Coordinator	1 Admin + City Plumbing Inspectors	1 FTE
Funding Structure	Water Rates	User Fees: Program Registration fee \$118.90/y, may be paid on property tax	Water rates for existing, permit fees for new installs	Water rates	25% water rates, 75% user fees	User Fees	User Fees. Program fee \$52/property	Water/Sewer rates	Water Rates
Permit Fee	\$0	Minimum \$216 per device	\$110 per device for initial installation if not part of another permit, or if changing device type	\$135	\$240 for 1-3 devices, \$45ea. thereafter	\$185-\$345 depending on town of residence	\$14.10/fixture	\$50 for up to 5 fixtures, \$75 for 5-15, \$100 for 15-25, +\$5/fixture thereafter	\$75
Test Tag Fee	\$0	\$0	\$10 for a package of 50, tags expire after 7 years	\$0	\$1	No	1y tag \$5, 5y tag \$25	No	\$25, lasts 5 years

¹ Statistics Canada Census, 2011

² Some complex buildings initially only did premise to ‘iron out wrinkles’, then internal

³ Only one notice went out in 2008. Target was larger water services first (6” then 5” then 4”) with the goal of completing 35,000 premises each year.

⁴ Handwritten notes say Full- 2007; later says program 2009-2016. By 2016 wish to have identified all properties needing Backflow Prevention Device.

⁵ Severe program is in early phase, moderate program in late phase Current program is for ICI and M-R properties. Starting 2017 Program will apply to residential properties with certain cross connections only.

⁶ Phased rollout began with Milton and Oakville in 2005. As of March 21, 2011 3,110 surveys were completed, with 56% having completed installation and testing of the required devices. In 2011 rollout was to proceed in Burlington and Halton Hills.

⁷ Phase 1: Severe (600 devices), Phase 2: Moderate (700 devices), Phase 3: Moderate/Minor (1100 devices)

⁸ NB another source says 2 FT

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Test Report Fee	Previously \$0, \$50 per test report as of Sept 1 2014 ⁹ , to increase to \$52.20 in 2016	\$60.20/test	\$6 for a package of 25 or free on-line	\$0	\$24 initially, \$23 thereafter	\$50.95	\$26/device	No	No
Survey Fee	\$0	\$149.40 per cross connection survey	\$0, except in cases where facilities are complex and engineer survey is required (Fee not City fee)	\$0	\$237	\$101.90	\$0 initially, \$104 thereafter	No	No
Forms Supplied?	Yes	Yes	Yes online	Yes (one paper says survey only)	Yes	Yes	Yes	No	Yes
Own Forms Allowed?	No	No	No	No	Yes	No	No	Yes, acceptable format only	Unclear
Online Submission	No. Form may be emailed, mailed, or faxed.	No: Forms must be mailed or hand delivered	Yes	Yes	No. Email, Mail, or hand-delivery required.	No	No	No	No
Testers registered with city?	Yes but not listed on website	Yes	Yes	Yes	Yes	Yes	Yes, \$100 initial registration fee, \$77.50 annually thereafter	No. Contractors DO NOT register with City, but documents collected ensure installers are certified and device is properly calibrated.	Yes. \$100 annual registration fee for testers.
Documents Required for Backflow Tester	-Certificate of Qualifications -CCC Certificate -Calibration Certificate	-Certificate of Qualifications -CCC Certificate -Calibration Certificate	-Certificate of Qualifications -CCC Certificate -Calibration Certificate -Liability Insurance	-Certificate of Qualifications -CCC Certificate -Calibration Certificate -Liability Insurance	-Certificate of Qualifications -CCC Certificate -Calibration Certificate	-Certificate of Qualifications -CCC Certificate -Calibration Certificate -Liability Insurance -WSIB	-Certificate of Qualifications -CCC Certificate -Calibration Certificate -Liability Insurance	-Calibration Certificate	-Trade License/Certification -CCC Certificate -Calibration Certificate
Survey Responsibility	Survey not required but own assessment is; GM may require survey to be done at property owner's expense if vague usage.	Customer	City plumbing inspectors unless facility too complex, then contractors	Customer	City for municipal properties, customer for private properties	Customer	Owner	Customer	Customer

⁹ Fee was expected to generate \$150,000 in additional revenue for 2014, with a projected annual revenue of \$563,750 based on 11,275 tests per year

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Follow up responsibility	Customer	Customer	Customer	Customer	Customer	Customer	Customer	Customer	Customer
Follow up frequency	Devices: annually Survey: Every 5 years if required	Devices: Annually Survey: Every 5 years	Devices: Annually	Devices: Annually Survey: Every 5 years	Devices: Annually Survey: Only if changes are made	Devices: annually Survey: Every 5 years	Devices: annually Survey: Every 5 years	Devices: annually	Devices: annually Survey: Every 5 years or with change in ownership, processes, or zoning
Audits of Properties and Surveys	Enforcement group checks that the proper devices have been installed as part of their routine inspections and when specifically required / requested by the backflow team.	City does initial inspection post-installation	If a property is thought to be in contravention of the by-law, the Engineer will carry out an inspection	No detailed “site inspection” policy yet, eventually will inspect all properties with completion time dependent on staff workload. Establishing process for QA/QC site visit as part of survey	Backflow Prevention Officer and designates carry out inspections. Inspections done initially after installation, thereafter unclear.	City can require inspection by qualified individual at Owner’s expense. All new buildings and buildings being rezoned require inspection.	City can require inspection by qualified individual at Owner’s expense.	Inspections done on all new installations and new builds, otherwise as needed.	Cross Connection Control Officer follows up as required.
Enforcement Strategy for partially or non-compliant properties	Fine up to \$100,000 for first and subsequent offences	City gives notice then if work is not done they carry out work themselves, and recoup the cost of work through the tax roll with 15% interest. If threat immediate can cut off water supply without notice. For first offence can be fined up to \$10,000 per day, for subsequent offences up to \$25,000 (person), \$50,000 then \$100,000 for corporations	Give notice then shut off water, or simply shut off water without notice	After sending 3 notices and giving 5 months for compliance, issue invoice of a backflow prevention process fee (\$224.50), then issue summons from Provincial Court. First conviction: \$100-\$50,000 fine, for a 2 nd offence \$400-\$100,000 fine, for a multiple offence \$100-\$10,000 per offence with no upper limit. The Town may undertake the work and recoup expenses via adding cost to tax roll.	Order will be issued, if not obeyed City undertakes work at owner’s expense by adding cost to tax roll.	Halt water service with or without notice, fine to a maximum of \$5,000	Halt water service, fine to a maximum of \$10,000	Halt water service, fine to a maximum of \$2,500	Halt water service, \$100 late fee for late reports
Enforcement Agents	Toronto Water By-law Officers	All municipal law enforcement officers	City Engineer+ authorized representatives	Director of Environmental Services, who can authorize town employees. Currently By-Law, eventually will have ‘Backflow Prevention Officer’	Appointed bylaw officer to be Backflow Prevention Officer	The Commissioner of Planning and Public Works and their designates	Building Inspectors, By Law Officers, Water Operations Staff	Municipal Environmental Officer	Backflow Prevention Officer

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Length of time allowed for compliance ¹⁰	Moderate	Give 120 days between notices	18 months after May 12, 2010		~2-3 months upon receipt of notice, time stated on notice. Dependent on Property Size	90 days	120 days post-notice	90 days post-notice	30 days post notice then 2 weeks following late notice	90 days post-notice
	Severe		24 months after May 12, 2010			60 days		30 days post-notice		30 days post-notice
Cost incurred for program initiation		Costs include staff time and public consultations.	2 FTE staff were hired to implement the program. Their positions were budgeted for in previous years		Purchased BFP software, developed online submission and online testing reports. Also staffing costs	In 2006 estimated \$55,000 for start up and \$160,000 annual operating budget	As of Oct 27, 2005, estimated cost of Policy implementation was \$74,700 including 1 FTE to coordinate the program. Proposed fee structure was to reduce net impact to budget to \$46,500.		Unclear, used existing Staff. Costs were their time, training, and manuals.	\$150,000-\$175,000
Estimated cost to public of moderate device installation			n/a		\$1,500-\$2,000 for a 2"		n/a	n/a	Depends on site of water lines and if structural work required, but est. \$500-\$2,000	No cost- cost borne by building owner
Estimated cost to public of severe device installation			n/a		\$1,500-\$2,000 for a 2"		n/a	n/a	Depends on site of water lines and if structural work required, but est. \$10,000-\$20,000 and can cost up to \$40,000	
Comments		Considered contracting but did not pursue due to data privacy issue.		Premise isolation required on all existing high hazard facilities and new or upgraded water services	Took 2 years to develop: 6 months to come up with ideas				High risk sectors require premise isolation	

¹⁰ If time insufficient all municipalities have clause whereby City can approve requests for extension. 40% of Markham’s properties needed extensions.