

2012 ANNUAL WATER QUALITY SUMMARY REPORT



**For the period of: January 1, 2012 –
December 31, 2012**

**Report prepared by: the Town of Newmarket, Public Works
Services – Development & Infrastructure Services Commission**

2012 ANNUAL WATER QUALITY SUMMARY REPORT

FOR THE PERIOD OF: JANUARY 1, 2012 – DECEMBER 31, 2012

Executive Summary

Town of Newmarket Public Works Services, as part of the Development and Infrastructure and Services Commission of the Corporation of the Town of Newmarket (“the Town”) delivers drinking water to its residents’ through the Water Distribution System. The Town acts as the Operating Authority and owns/operates the Newmarket Water Distribution System (DWS 260003188).

The Town has approximately 25,876 fully metered water service connections, 296 kilometers of watermain, 2,508 mainline valves, 2,190 fire hydrants and an approximate population of 80, 000. The Town is considered a Large Municipal Residential System under the Safe Drinking Water Act and is known as the “Newmarket Water Distribution System” (Class I).

The Newmarket Water Distribution System is divided into 3 zones (East, Central, and West) that range in pressure from approximately 40 psi – 100 psi.

The Town’s water operators, certified by the Province of Ontario through the Ministry of the Environment (MOE), maintain and operate the water distribution system. Some of the typical operational activities performed by staff include, but are not limited to:

- Water sampling for submission to accredited laboratories for analysis
- Field testing for disinfectant residuals
- Uni-directional flushing
- Watermain/service repair
- Valve exercising/inspections
- Hydrant inspection

The Region of York is responsible for water supply, treatment, storage, and transmission to the Town of Newmarket. All supplied water was tested against and met all regulatory standards. Continuous monitoring by the Region via online monitoring systems ensures the highest quality of water is provided to our municipality at all times. Six Regionally-owned/operated/maintained storage tanks located throughout the distribution system provide additional storage, pressure, and fire protection. The Region publishes a report with respect to water quality of both source and treated waters. This report is updated annually and is posted on their website: www.york.ca.

Newmarket is supplied with both surface and ground source waters. The purpose of blending is to decrease the demand on the underground aquifer and provide additional security by having a second supply source to supplement the needs of our rapidly growing community. The ground source is supplied through the Yonge Street aquifer (5 wells located along the Yonge Street corridor, numbered 13 & 16, 1 & 2, and 15) as well as from an additional 4 wells located in the community of Queensville. All 9 of these wells are owned and operated by the Region of York ("the Region"). In 2008, the Region began to supplement the ground water supply with surface water from Lake Ontario via Peel Region. This water is conveyed through four connections with the Town of Aurora located along our Southern boundary (Bathurst Street, Yonge Street, Bayview Avenue, and Leslie Street). Five interface connections owned and operated by the Region of York, with the Town of East Gwillimbury have also been established to provide water to their drinking water systems (Harry Walker Parkway, Davis Drive, Yonge Street-east side, Yonge Street-west side, and Woodspring Avenue).

Treatment of the water supplied to the Newmarket Water Distribution System by the Region of York is through the process of chloramination (the addition of chlorine and ammonia).

The York-Durham Regional Environmental Laboratory (located in Pickering, Ontario), an accredited laboratory registered with the Canadian Association for Laboratory Certification Inc. (CALA), is under contract with the Town for water quality analysis of all water samples sent to them from our distribution system.

Water samples are collected at various locations in town through the use of designated Sampling Stations. This practice assures that samples are being drawn at points which represent the entire distribution system.

The Town's water quality monitoring program ensures that sufficient disinfectant levels are present in the water that we provide such that Regulatory requirements are met, as well as ensuring that there is no presence of pathogenic organisms.

The Newmarket Water Distribution System is required by law to comply with the *Safe Drinking Water Act (SDWA)* and associated regulations (i.e. *O. Reg. 170/03*), as well as related requirements. The numbers of samples that are tested annually exceed the requirements of *O. Reg. 170/03*.

As the Operating Authority, the Newmarket Water Distribution System is inspected annually by the Ministry of the Environment (MOE) to ensure compliance with regulatory requirements. An inspection was conducted January 14 & 16, 2013 (for the period of January 1, 2012 to December 31, 2012) with a resulting final inspection rating of 100%.

From January 1, 2012 to December 31, 2012, the Town of Newmarket reported 158 Adverse Water Quality Incidents (AWQIs) in the Newmarket Water Distribution System. One of the incidents involved the detection of *Clostridium Perfringens* and the remaining 157 were as a result of disinfectant (chloramine) residuals dropping below the regulated lower limits of 0.25mg/L combined chlorine and 0.05mg/L free chlorine.

The Newmarket Water Distribution System has been accredited by SAI Global under the requirements of the SDWA. To receive this third party accreditation, the Town was required to develop an Operational Plan. This plan has been completed and is available to view upon request from the Town of Newmarket Operations Centre. Additionally, internal and external audits of this Operational Plan have been conducted for 2012. The Town has met the Quality Management System Requirements as required by the SDWA.

The Town maintained the drinking water system in a fit state of repair in 2012 and followed best industry practices during the repair, inspection, and maintenance of the system.

The Town has completed this summary report to satisfy the regulatory requirements of the *Safe Drinking Water Act*, O. Reg. 170/03. For more information, please visit www.newmarket.ca or call The Town of Newmarket at 905-895-5193.

Any questions related to the Newmarket Water System, this report, or any water quality issue may be directed to the Overall Responsible Operator, Bill Wilson (Supervisor of Water/Wastewater Operations) at our Operations Centre 905-953-5300, ext. 2550, or via email at bwilson@newmarket.ca.

TABLE OF CONTENTS

INTRODUCTION	2
PURPOSE.....	2
SCOPE.....	2
NEWMARKET WATER DISTRIBUTION SYSTEM OVERVIEW	4
FIGURE 1: NEWMARKET WATER DISTRIBUTION SYSTEM OVERVIEW	6
MAJOR EXPENSES INCURRED TO INSTALL, REPAIR OR REPLACE REQUIRED EQUIPMENT/INFRASTRUCTURE.....	7
TABLE 1: 2012 EXCAVATION DETAILS	7
FREE CHLORINE CONVERSION PROGRAM.....	10
REGULATORY LEAD SAMPLING PROGRAM	10
TABLE 2: NUMBER OF SAMPLING POINTS REQUIRED FOR RELIEF FROM REGULATORY REQUIREMENTS	11
TABLE 3: MICROBIOLOGICAL PARAMETER SAMPLING SUMMARY	12
TABLE 4: ORGANICS/INORGANICS SAMPLING SUMMARY	12
TABLE 5: DISINFECTANT RESIDUAL MONITORING	14
TABLE 6: 2012 ADVERSE WATER QUALITY INCIDENTS	15
NEWMARKET PRODUCTION FLOW DATA.....	42
TABLE 7: 2012 PRODUCTION FLOWS	42
KEEPING NEWMARKET’S DRINKING WATER SAFE.....	44
SAFE DRINKING WATER ACT, 2002 (S.O. 2002, CHAPTER 32), PART III – GENERAL REQUIREMENTS.....	45

INTRODUCTION

Purpose

The purpose of this report is to provide information to our consumers and stakeholders as well as to satisfy regulatory requirements of the *Safe Drinking Water Act, 2002* including the *Drinking Water Quality Management System (DWQMS)*, reports to Owner, and regulatory reporting required under O. Reg. 170/03. This report is a compilation of information that helps to illustrate the ongoing delivery of safe drinking water to our consumers in the Town of Newmarket.

Scope

This Annual Water Quality Report includes information pertaining to the Town of Newmarket's Water Distribution System for the period of January 1, 2012 to December 31, 2012. This information is required by law to be reported to the following:

1. The Drinking Water System Owners (The Corporation of the Town of Newmarket – Mayor and Council)
2. Top Management (Director – Public Works Services)
3. The public

NEWMARKET'S QUALITY MANAGEMENT POLICY

"The Town of Newmarket is committed to the consistent delivery of safe drinking water through compliance with legislative and regulatory requirements. We will strive to achieve this goal through the implementation and continuous improvement of the Quality Management System.

The Town of Newmarket also pledges to ensure open communication, both with public, as well as staff concerning all policies, procedures, and documentation pertaining to drinking water quality.

The Quality Management Policy applies to all municipal management and staff, and is posted at the municipal offices, operations centre and on the municipal website."

April 11, 2011

This report satisfies both the *Safe Drinking Water Act (SDWA)* and *Ontario Regulation (O. Reg.) 170/03*:

- Section 11, *Annual Reports* which include:
 - A brief description of the Drinking Water System
 - A summary of the most recent water test results required under O.Reg. 170/03
 - A summary of adverse test results and other issues reported to the Ministry including corrective actions taken
 - A description of the major expenses incurred to install, repair, or replace required equipment/infrastructure
 - The locations where this report is available for inspection

And;

- Schedule 22, Summary Report which includes:
 - List the requirements of the SDWA, the regulations, the system's approval, *Drinking Water Works Permit (DWWP)*, *Municipal Drinking Water Licence (MDWL)*, and any orders applicable for the system that were not met at any time during the period covered by the report
 - For each requirement that was not met, the duration of the failure and the measures that were taken to correct the failure

This report satisfies the requirements for the Newmarket Water Distribution System.

A copy of the Annual Report is available for viewing at:

- **Newmarket Operations Centre**, 1275 Maple Hill Court
- **Newmarket Municipal Offices**, Customer Service Counter, 395 Mulock Drive
- **Online** at www.newmarket.ca

NOTICE:

Please note that every reasonable effort has been made to ensure the accuracy of this report. This report is published with the best available information at the time of publication.

NEWMARKET WATER DISTRIBUTION SYSTEM OVERVIEW

The mission of the Town of Newmarket's Public Works Services is to provide customers and the community with a safe, consistent supply of high quality drinking water while meeting, exceeding, and continually improving on legal, operational, and quality management system requirements.

The Newmarket Water Distribution System is a Class I Distribution Subsystem. From January 1, 2012 to December 31, 2012, sixteen (16) water operators and staff were certified to operate/maintain the system (14 full-time water/wastewater operators, plus 2 additional licenced staff who work in a different department that are available for support).

The Distribution System Infrastructure (including watermains, valves, hydrants, water services, and meters) services approximately 80,000 people within the Town of Newmarket. All new components meet NSF 61 requirements or approved equivalents and are installed and maintained in accordance with approved industry standards.

The Newmarket Water Distribution System is comprised of/maintains the following infrastructure:

- 295.84 kilometers of distribution system watermain with a diameter <450mm
- 2,508 mainline valves
- 2,190 municipally owned fire hydrants
- 25,876 metered water services
- 2 Pressure Regulating Valves

Water pressure is maintained throughout the distribution system ranging between approximately 40-100 psi. Newmarket is supplied with both surface and ground source waters. The purpose of blending is to decrease the demand on the underground aquifer and provide additional security by having a second supply source to supplement the needs of our rapidly growing community. The ground source is supplied through the Yonge Street aquifer (5 wells located along the Yonge Street corridor, numbered 13 & 16, 1 & 2, and 15) as well as from an additional 4 wells located in the community of Queensville. All 9 of these wells are owned and operated by the Region of York ("the Region"). In 2008, the Region began to supplement the ground water supply with surface water from Lake Ontario via Peel Region. This water is conveyed through four connections

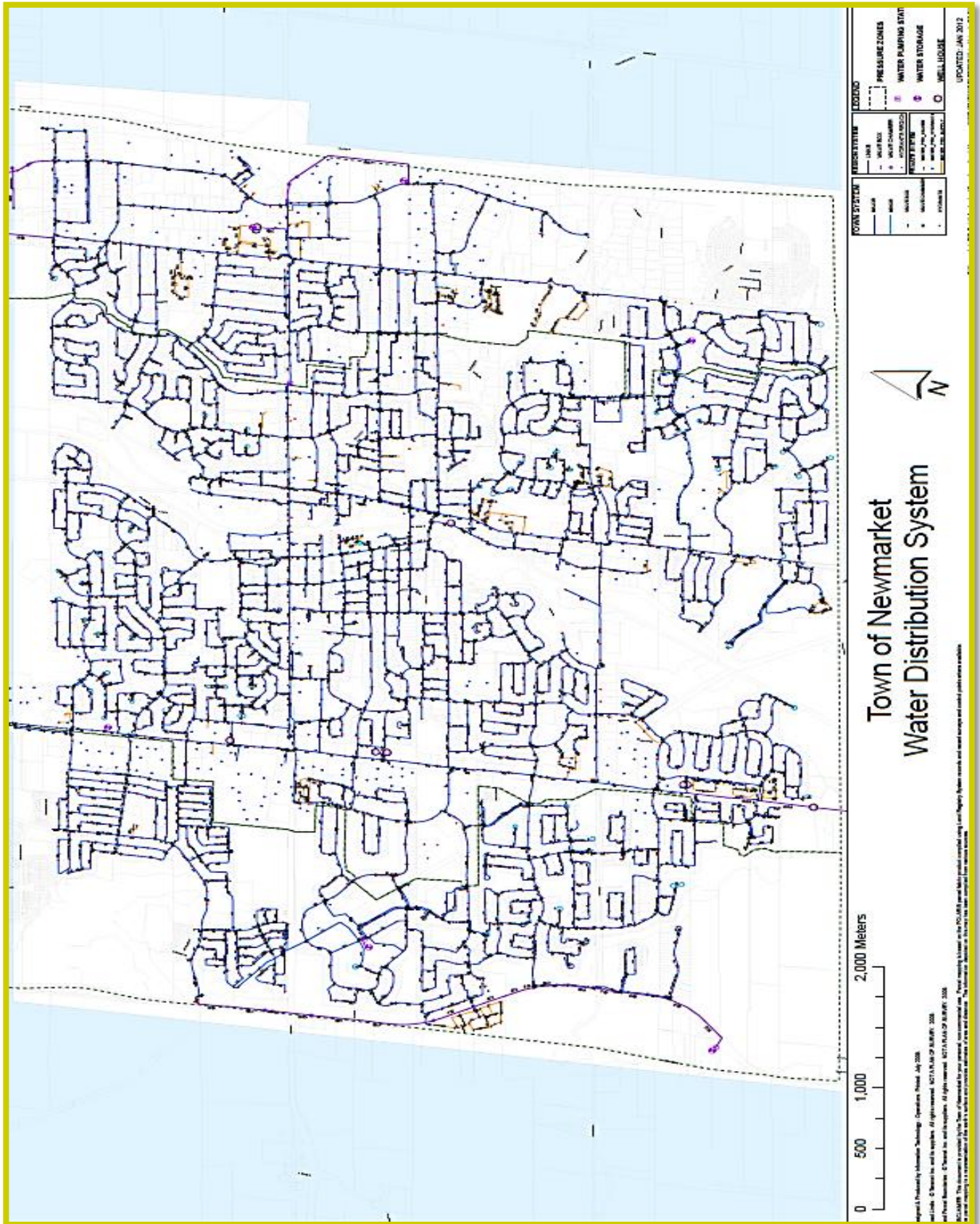
with the Town of Aurora located along our Southern boundary (Bathurst Street, Yonge Street, Bayview Avenue, and Leslie Street). Five interface connections with the Town of East Gwillimbury have also been established to provide water to their systems (Harry Walker Parkway, Davis Drive, Yonge Street-east side, Yonge Street-west side, and Woodspring Avenue).

From January 1, 2012 to December 31, 2012, a total of 8,599,496 m³ of water was purchased from the Region of York for the Newmarket Water Distribution System. Of this total amount purchased, it was necessary to flush (through the use of fire hydrant flows) approximately 163,472m³ in order to maintain water quality throughout the distribution system.

From January 1, 2012 to December 31, 2012, regulatory microbiological and chemical quality samples were taken by certified operators; and tests performed by accredited, licenced laboratories on water samples collected throughout the drinking water system. In all cases, the drinking water supplied to all customers was confirmed safe.

The Newmarket Water Distribution System is classified as a *Large Municipal Residential* system and operates under the provincially regulated requirements of the *Safe Drinking Water Act* which may be found at <http://www.e-laws.gov.on.ca>. The system operates under Municipal Drinking Water Licence (MDWL) 124-101 (Issue 2) and the Drinking Water Works Permit (DWWP) 124-201 (Issue 1). The MDWL and the DWWP describe system-specific requirements that are supplementary to provincial regulations and act as licences for water distribution systems. These documents outline specific conditions and requirements regarding operation, maintenance and upgrades that are required by the system and considered regulatory in nature. These documents are available by request for viewing at the Newmarket Operations Centre, 1275 Maple Hill Court.

FIGURE 1: NEWMARKET WATER DISTRIBUTION SYSTEM OVERVIEW



MAJOR EXPENSES INCURRED TO INSTALL, REPAIR, OR REPLACE REQUIRED EQUIPMENT/INFRASTRUCTURE

From January 1, 2012 to December 31, 2012, the Town incurred several significant expenses in regards to both replacement programs and repair of infrastructure related to the Water Distribution System.

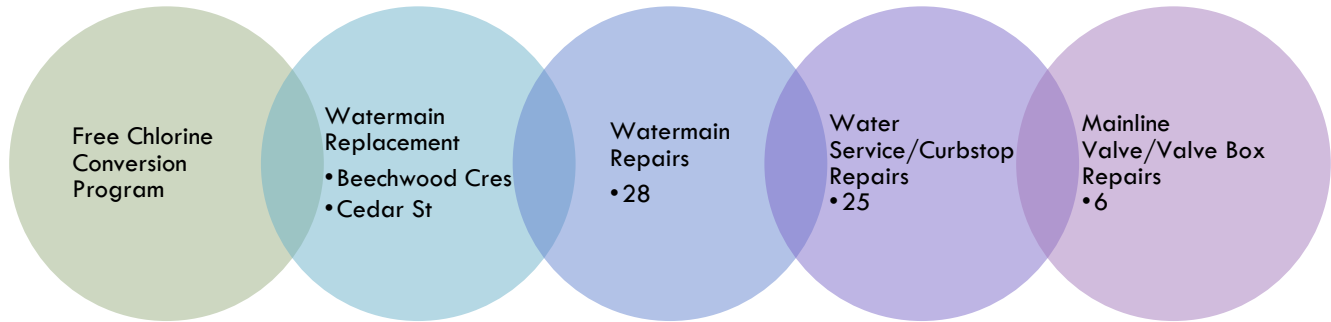


TABLE 1: 2012 EXCAVATION DETAILS

EXCAVATION DATE	ADDRESS	TYPE OF REPAIR	PIPE MATERIAL	PIPE SIZE	BREAK TYPE	APPARENT CAUSE
JAN 10, 2012	1009 JACARANDAH	WATERMAIN	DUCTILE IRON	6"	CIRCUMFERENCE	CORROSION
JAN 12, 2012	GORHAM/ STEWART	WATERMAIN	DUCTILE IRON/PVC	12"	TAPPING SLEEVE VALVE	CORROSION
JAN 12, 2012	409 BORDEN	WATERMAIN	DUCTILE IRON	6"	HOLE	CORROSION
JAN 18, 2012	67 LORNE	WATERMAIN	CAST IRON	6"	CIRCUMFERENCE	BEAM FAILURE
JAN 19, 2012	35 GLADMAN	WATERMAIN	CAST IRON	6"	CIRCUMFERENCE	BEAM FAILURE
JAN 24, 2012	MAGNOLIA/ WARATAH	WATERMAIN	DUCTILE IRON	6"	HOLE	CORROSION
FEB 1, 2012	DORCHESTER/ BRISTOL	WATERMAIN	PVC	8"/6"	LEAK AT 8" x 6" REDUCER	FAULTY GASKET
FEB 6, 2012	198 PENN	WATERMAIN	CAST IRON	6"	CIRCUMFERENCE	BEAM FAILURE
FEB 7, 2012	734 SUNNYPOINT	CURBSTOP ROD	COPPER	5/8"	CORRODED ROD	CORROSION
FEB 8, 2012	293 TOWERCREST	MAIN VALVE			BOLTS	CORROSION
FEB 25, 2012	69 DAVIS	WATERMAIN	CAST IRON	6"	LONGITUDE	CORROSION

2012 ANNUAL WATER QUALITY SUMMARY REPORT

EXCAVATION DATE	ADDRESS	TYPE OF REPAIR	PIPE MATERIAL	PIPE SIZE	BREAK TYPE	APPARENT CAUSE
MAR 2, 2012	PATTERSON/ LEEDER	WATERMAIN	DUCTILE IRON	12"	HOLE	CORROSION
MAR 14, 2012	741 PAM	CURBSTOP ROD	COPPER	5/8"	CORRODED ROD	CORROSION
MAR 29, 2012	22 GEORGE	WATER SERVICE	POLY/ GALVANIZED	2"	FITTING	CORROSION
MAY 25, 2012	FERNBANK (STICKWOOD/	WATER SERVICE		2"	CURBSTOP LEAK	FAILURE
JUNE 13, 2012	46 EVES CRT	CURBSTOP ROD	COPPER		CORRODED ROD	CORROSION
JUNE 21, 2012	25 EVES CRT	CURBSTOP ROD	COPPER		CORRODED ROD	CORROSION
JUNE 21, 2012	42 EVES CRT	CURBSTOP ROD	COPPER		CORRODED ROD	CORROSION
JUNE 25, 2012	76 EVES CRT	CURBSTOP ROD	COPPER		CORRODED ROD	CORROSION
JUNE 30, 2012	83 KINGSTON	WATERMAIN	DUCTILE IRON	8"	HOLE	CORROSION
JULY 4, 2012	28 LONGFORD	WATER SERVICE	COPPER	1"	UPGRADE	REMOVE CROWSFOOT
JULY 11, 2012	370 WAKEFIELD	CURBSTOP ROD	COPPER		BENT	DAMAGED BY PAVING
JULY 15, 2012	339 DENNIE AVE	WATERMAIN	DUCTILE IRON	6"	HOLE	CORROSION
JULY 24, 2012	216 WILLIAM ROE	WATER SERVICE	COPPER	3/4"	LEAKING CURBSTOP	CORROSION
JULY 25, 2012	217 AUSTINPAUL	CURBSTOP ROD			CORRODED ROD	CORROSION
JULY 25, 2012	41/43 NEWBURY	CURBSTOP ROD			CORRODED ROD	CORROSION
AUG 1, 2012	128 QUEEN	CURBSTOP ROD			CORRODED ROD	CORROSION
AUG 1, 2012	495 BRISTOL	WATERMAIN	DUCTILE IRON	8"	HOLE	CORROSION
AUG 14, 2012	438 PARK AVE	WATERMAIN	CAST IRON	6"	HOLE/LONGITUDE	PRESSURE SURGE
AUG 28, 2012	271 COTTER ST	CURBSTOP ROD			BENT	
AUG 28, 2012	395 ROYWOOD	CURBSTOP ROD			CORRODED ROD	CORROSION
AUG 28, 2012	468 DOVER	CURBSTOP ROD			CORRODED ROD	CORROSION

2012 ANNUAL WATER QUALITY SUMMARY REPORT

EXCAVATION DATE	ADDRESS	TYPE OF REPAIR	PIPE MATERIAL	PIPE SIZE	BREAK TYPE	APPARENT CAUSE
AUG 29, 2012	74 WILLIAM ROE BLVD	CURBSTOP ROD			BENT	
AUG 31, 2012	CODY CRES/ ARMITAGE	VALVE BOX		4SL	OFFSET	GROUND MOVEMENT
SEPT 6, 2012	379 ASHWORTH	VALVE BOX		4SL	OFFSET	GROUND MOVEMENT
SEPT 6, 2012	646 HAINES	VALVE BOX		4SL	OFFSET	GROUND MOVEMENT
SEPT 6, 2012	198 OLD MAIN ST N	WATERMAIN	CAST IRON	8"	CIRCUMFERENCE	AGE/BEAM FAILURE
SEPT 10, 2012	409 ROYWOOD	CURBSTOP ROD			CORRODED ROD	CORROSION
SEPT 11, 2012	716 ROYWOOD	CURBSTOP ROD			CORRODED ROD	CORROSION
SEPT 11, 2012	CEMETERY (AT BEXHILL)	WATER SERVICE	CURBSTOP		LEAKING CONNECTION	CORROSION
SEPT 12, 2012	716 SUNNYPOINT	CURBSTOP ROD			CORRODED ROD	CORROSION
SEPT 23, 2012	353 BORDEN	WATERMAIN	DUCTILE IRON	6"	HOLE	CORROSION
SEPT 25, 2012	99 JULIA CRT	WATERMAIN	DUCTILE IRON	6"	HOLE	CORROSION
SEPT 27, 2012	347 SIMCOE	WATERMAIN	VALVE BOX	6"	CORRODED BOLTS	CORROSION
SEPT 28, 2012	359 SIMCOE	WATERMAIN	CAST IRON	6"	PARALLEL BREAK	CORROSION
SEPT 28, 2012	149 STICKWOOD	WATERMAIN	DUCTILE IRON	6"	HOLE	CORROSION
OCT 2, 2012	WILSTEAD (ADJ 130 DAVIS)	WATERMAIN	CAST IRON	6"	CIRCUMFERENCE	BEAM FAILURE
OCT 4, 2012	729 DAVIS (PRIVATE)	WATERMAIN	DUCTILE IRON	6"	HOLE	CORROSION
OCT 9, 2012	99 ARDEN	WATERMAIN	CAST IRON	6"	HOLE	CORROSION
OCT 11, 2012	705 JACKSON CRT	WATERMAIN	DUCTILE IRON	6"	HOLE	CORROSION
OCT 24, 2012	172 NEWTON	CURBSTOP ROD		3/4"	CORRODED ROD	CORROSION
NOV 1, 2012	299 WOODLAND CRT	WATERMAIN	DUCTILE IRON	6"	BEAM	CORROSION
NOV 5, 2012	211 QUEEN ST	WM	CAST IRON	6"	CIRCUMFERENCE	

EXCAVATION DATE	ADDRESS	TYPE OF REPAIR	PIPE MATERIAL	PIPE SIZE	BREAK TYPE	APPARENT CAUSE
NOV 14, 2012	411 ROYWOOD	WM	CAST IRON	6"	LONGITUDE	AGE/BEAM FAILURE
NOV 22, 2012	804 GRACE ST	WS	COPPER	5/8"	COUPLING FAILURE	
NOV 23, 2012	HARRY WALKER/DAVIS	CURBSTOP REPAIR				
NOV 23, 2012	170 LORNE AVE	VALVE	DUCTILE IRON	6"	BOLTS	CORROSION
DEC 3, 2012	372 GLENROSE	WM	CAST IRON	6"	CIRCUMFERENCE	
DEC 19, 2012	106 LUNDY'S LANE	CURBSTOP	CURBSTOP ROD/BOX		CORRODED ROD	CORROSION

FREE CHLORINE CONVERSION PROGRAM

Difficulties maintaining chlorine residuals in sections of the Newmarket Water Distribution system led to multiple adverse water quality incidents in 2012. After increased maintenance programs, several third-party studies/analyses, careful deliberation amongst industry professionals, as well as local and regional governments, the Town initiated a formal request to the Region of York to convert areas of challenge from a chloraminated (chlorine + ammonia) disinfection system to a free chlorine (chlorine only) system for enhanced maintenance. Ontario Ministry of the Environment Drinking Water Inspectors and the local Medical Officer of Health were also consulted throughout the process to ensure they understood and supported the program.

Free chlorine disinfection is one of the Ministry of the Environment's (MOE) approved methods for drinking water disinfection in Ontario and is one of the most widely-used processes across North America. Free chlorine is a stronger disinfectant than chloramine, and was chosen for enhanced maintenance of the water distribution systems to maintain Newmarket's high standard of water quality.

REGULATORY LEAD SAMPLING PROGRAM

In 2012, lead sampling programs were conducted in compliance with Schedule 15.1 of O. Reg. 170/03 of the *Safe Drinking Water Act*. It was the 9th round of enhanced lead sampling that Newmarket completed. 26 residential samples and 12 distribution system samples were taken and submitted to the York-Durham Regional Environmental Laboratory for analysis. Sample results ranged from between 0.0001mg/L-0.0062mg/L for residential samples, and 0.0001mg/L-0.0005mg/L for distribution system samples. Due to sufficient evidence indicating that lead is not leaching from infrastructure in the Newmarket Water Distribution

system, combined with a significant decline in volunteers for residential samples, the Corporation of the Town of Newmarket, on April 20, 2012, submitted a request for Regulatory Relief from Lead Sampling Requirements.

“Amendments to Ontario Regulation 170/03 (Drinking Water Systems) to reduce the potential for elevated levels of lead in drinking water at the tap came into effect on July 26, 2007. These amendments include mandatory community-wide testing for lead, notification of results from the community testing program, and the development and implementation of corrosion control measures for lead reduction... Under Part V (municipal systems) and Part VI (regulated non-municipal systems) of the Safe Drinking Water Act, 2002, the Director, through conditions of an approval, may provide relief for a drinking water system from a regulatory requirement related to the treatment of water, the sampling, testing or monitoring of water quality, or the reporting of the results. As outlined in the December 17, 2007 letter to municipal and non-municipal residential drinking water system owners, the ministry will consider granting regulatory relief to owners who, despite best efforts, are not able to secure the required number of sampling locations.”

*Section 38 (Municipal Drinking Water Systems),
Guide for Requesting Regulatory Relief from Lead Sampling Requirements in
Schedule 15.1 of Regulation 170/03, Safe Drinking Water Act, 2002*

The application for relief was approved by the Ontario Ministry of the Environment, with the below table updated to illustrate the Newmarket Water Distribution System’s new regulatory requirements (effective until October 15, 2016).

TABLE 2: NUMBER OF SAMPLING POINTS REQUIRED FOR RELIEF FROM REGULATORY REQUIREMENTS

Column 1 Drinking Water System Or Drinking Water Subsystem name	Column 2 DWS Number	Column 3 Number of Sampling Points in Plumbing that Serves Private Residences	Column 4 Number of Sampling Points in Plumbing that Does Not Serve Private Residences	Column 5 Number of Sampling Points in Distribution System
Newmarket Distribution System	260003188	0	0	8

Source: Municipal Drinking Water Licence number 124-101 Dated 18th day of May, 2012

MICROBIOLOGICAL PARAMETER SAMPLING SUMMARY

For the period of January 1, 2012 – December 31, 2012

TABLE 3: MICROBIOLOGICAL SAMPLING SUMMARY

PARAMETER	REGULATED LIMIT	TOTAL NO. OF SAMPLES TESTED	NO. OF DETECT-ABLE RESULTS	SAMPLES EXCEEDING LIMIT	REPORTED EXCEED-ANCES	RANGE OF RESULTS
Heterotrophic Plate Count (HPC)	*no current standards	580	140	0	0	<1 CFU/mL – 10,000 CFU/mL
Total Coliforms (MPN/PA)	0 MAC	1,225	0	0	0	N/A
Escherichia E. Coli/E. (MPN/PA)	0 MAC	1,225	0	0	0	N/A

ORGANICS/INORGANICS SAMPLING SUMMARY

For the period of January 1, 2012 – December 31, 2012

TABLE 4: ORGANICS/INORGANICS SAMPLING SUMMARY

PARAMETER	REGULATED LIMIT	TOTAL NO. OF SAMPLES TESTED	NO. OF DETECT-ABLE RESULTS	SAMPLES EXCEEDING LIMIT	REPORTED EXCEED-ANCES	RANGE OF RESULTS
Alkalinity (total as CaCO ₃)	Operational Guideline: 30-500mg/L	10	10	n/a	0	172 mg/L – 188 mg/L
Ammonia (free, as N)	*no current standards	115	110	n/a	0	0.00 mg/L – 0.60 mg/L
Ammonia (total, as N)	*no current standards	75	73	n/a	0	<0.01 mg/L – 0.66 mg/L
Bromide		75	0	n/a	0	<0.02 mg/L – <0.04mg/L
Bromodichloromethane	*no current standards	11	11	n/a	0	0.0030 mg/L – 0.0067 mg/L
Bromoform	(one of the 4 THMs that make up Total THMs)	11	8	0	0	<0.0002 mg/L – 0.0008 mg/L

2012 ANNUAL WATER QUALITY SUMMARY REPORT

PARAMETER	REGULATED LIMIT	TOTAL NO. OF SAMPLES TESTED	NO. OF DETECT-ABLE RESULTS	SAMPLES EXCEEDING LIMIT	REPORTED EXCEED-ANCES	RANGE OF RESULTS
Calcium	*no current standards	75	75	n/a	0	34.8 mg/L – 46.9 mg/L
Chloride	Aesthetic Object (AO) 250 mg/L	75	75	0	0	11.6 mg/L – 35.8 mg/L
Chloroform	(one of the 4 THMs that make up Total THMs)	11	11	0	0	0.0059 mg/L – 0.0097 mg/L
Dibromochloromethane	(one of the 4 THMs that make up Total THMs)	11	11	0	0	0.0012 mg/L – 0.0057 mg/L
Fluoride	1.5 mg/L	75	75	0	0	0.12 mg/L – 0.43 mg/L
Hardness (total, as CaCO ₃)	Operational Guideline 80-100mg/L	75	75	75	0	122 mg/L – 190 mg/L
Lead (total)	0.01 mg/L	10	10	0	0	0.0002 mg/L – 0.0005 mg/L
Magnesium (total)	*no current standards	75	75	n/a	0	8.61 mg/L – 19.4 mg/L
Nitrate (as N)	10 mg/L (as Nitrogen)	75	69	0	0	<0.0005 mg/L – 0.583 mg/L
Nitrate + Nitrite (as N)	10 mg/L (as Nitrogen)	75	70	0	0	(AVG) 0.177 mg/L
o-Phosphate (as P)	*no current standards	75	14	n/a	0	<0.01 mg/L – 0.08 mg/L
pH	Operational Guideline 6.5 – 8.5	844	844	n/a	0	AVG 8.03 mg/L
Potassium (total)	*no current standards	75	75	n/a	0	0.51 mg/L – 1.59 mg/L
Sodium (total)**	Aesthetic Objective (AO) 200 mg/L Indicator of adverse quality 20 mg/L	75	75	33	0	14.0 mg/L – 21.4 mg/L

PARAMETER	REGULATED LIMIT	TOTAL NO. OF SAMPLES TESTED	NO. OF DETECTABLE RESULTS	SAMPLES EXCEEDING LIMIT	REPORTED EXCEEDANCES	RANGE OF RESULTS
Sulphate	Aesthetic Objective (AO) 500 mg/L	75	75	0	0	0.12 mg/L – 30.9 mg/L
Total Trihalomethanes (TTHMs)	0.100 mg/L	11	11	0	0	0.0107 mg/L – 0.0211 mg/L

** As per Schedule 16 (Reporting Adverse Test Results and Other Problems); "Duty to report under s. 18 of the Act 16-3. (1) The following are prescribed as adverse results of a drinking water test for the purpose of section 18 of the Act: 8. A result indicating that the concentration of sodium exceeds 20 milligrams per litre in a sample of drinking water, if a report under subsection 18 (1) of the Act has not been made in respect of sodium in the preceding 57 months." **Previously reported Adverse for sodium AWQI #10162 on Mar 9, 2011. Next required reporting date is Dec 8, 2015**

DISINFECTANT RESIDUAL MONITORING

For the period of January 1, 2012 – December 31, 2012

TABLE 5: DISINFECTANT RESIDUAL MONITORING

PARAMETER	MINIMUM REGULATED LIMIT	TOTAL NO. OF SAMPLES	RANGE	SAMPLES EXCEEDING LIMIT	REPORTED EXCEEDANCES (AWQIs)
Chlorine (Combined Chlorine/Free Chlorine)	0.25 mg/L (combined)	7,159	0.00 mg/L – 2.74 mg/L	157	157
- routine sampling/daily residuals/extra sampling	0.05 mg/L (free)				

*please refer to the Region of York's Annual Water Quality Report (www.york.ca) for further detailed information on treated water quality provided to the Town of Newmarket.

F=FREE CHLORINE; T=TOTAL CHLORINE; C=COMBINED CHLORINE (AS CHLORAMINES); HYD=FIRE HYDRANT

ADVERSE WATER QUALITY INCIDENTS (AWQIs)

For the period of January 1, 2012 – December 31, 2012

TABLE 6: 2012 ADVERSE WATER QUALITY INCIDENTS

DATE	TIME	AWQI	PARAMETER	STANDARD	RESULT (mg/L)	LOCATION	RESOLUTION
JAN 3, 2012	13:20	104628	COMBINED CHLORINE	0.25mg/L	F: 0.01 T: 0.08 C: 0.07	SS-17 (OPP BORDEN AVE)	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JAN 3, 2012/14:45 • F: 0.03 • T: 0.69 • C: 0.66
JAN 9, 2012	13:10	104655	COMBINED CHLORINE	0.25mg/L	F: 0.01 T: 0.15 C: 0.14	HYD – 606 OSLER CRT	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JAN 9, 2012/14:25 • F: 0.01 • T: 0.38 • C: 0.37
JAN 23, 2012	10:55	104782	COMBINED CHLORINE	0.25mg/L	F: 0.00 T: 0.13 C: 0.13	HYD – 263 HODGSON DR	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JAN 23, 2012/11:20 • F: 0.02 • T: 0.54 • C: 0.52
JAN 25, 2012	10:35	104810	COMBINED CHLORINE	0.25mg/L	F: 0.00 T: 0.15 C: 0.15	HYD – 263 HODGSON DR	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JAN 25, 2012/11:20 • F: 0.03 • T: 0.64 • C: 0.61
FEB 8, 2012	11:55	104986	COMBINED CHLORINE	0.25mg/L	F: 0.01 T: 0.12 C: 0.11	HYD – OPP 81 BULMER CRT	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • FEB 8, 2012/12:00 • F: 0.02 • T: 0.46 • C: 0.44
FEB 23, 2012	09:25	105128	COMBINED CHLORINE	0.25mg/L	F: 0.02 T: 0.19 C: 0.17	HYD – 232 THOMS CRES	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • FEB 23, 2012/11:25 • F: 0.01 • T: 0.30 • C: 0.29

***ALL DATES WITH ASTERISK (*) INVOLVED SEVERAL OTHER ADVERSE RESIDUALS THAT WERE RECORDED/REPORTED DURING THE PERIODS OF FLUSHING TO RESOLVE. ALL OF THESE RECORDS ARE PUBLIC INFORMATION AND AVAILABLE FOR VIEWING UPON REQUEST AT 1275 MAPLE HILL COURT.**

2012 ANNUAL WATER QUALITY SUMMARY REPORT

DATE	TIME	AWQI	PARAMETER	STANDARD	RESULT (mg/L)	LOCATION	RESOLUTION
FEB 29, 2012	10:00	105199	COMBINED CHLORINE	0.25mg/L	F: 0.01 T: 0.14 C: 0.13	HYD – 115 COLERIDGE DR	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • FEB 29, 2012/12:30 • F: 0.02 • T: 0.61 • C: 0.59
MAR 2, 2012	12:40	105225	COMBINED CHLORINE	0.25mg/L	F: 0.02 T: 0.11 C: 0.09	HYD – 115/117 COLERIDGE DR	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • MAR 2, 2012/15:00 • F: 0.06 • T: 0.50 • C: 0.44
*MAR 5, 2012	10:50	105240	COMBINED CHLORINE	0.25mg/L	F: 0.01 T: 0.09 C: 0.08	SS-17 WILLIAM ROE BLVD (OPP BORDEN AVE)	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • MAR 5, 2012/13:10 • F: 0.03 • T: 1.25 • C: 1.22
*MAR 6, 2012	12:45	105265	COMBINED CHLORINE	0.25mg/L	F: 0.01 T: 0.06 C: 0.05	HYD – KENT DR @ PENROSE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUALS • MAR 6, 2012/14:15 • F: 0.01 • T: 0.43 • C: 0.42
*MAR 7, 2012	13:00	105275	COMBINED CHLORINE	0.25mg/L	F: 0.01 T: 0.11 C: 0.10	HYD – S/E CORNER KENT/PENROSE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • MAR 7, 2012/11:15 • F: 0.03 • T: 0.79 • C: 0.76
*MAR 8, 2012	13:35	105294	COMBINED CHLORINE	0.25mg/L	F: 0.01 T: 0.24 C: 0.23	HYD – E END OF NEWPARK BLVD	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • MAR 8, 2012/16:30 • F: 0.02 • T: 0.90 • C: 0.88

***ALL DATES WITH ASTERISK (*) INVOLVED SEVERAL OTHER ADVERSE RESIDUALS THAT WERE RECORDED/REPORTED DURING THE PERIODS OF FLUSHING TO RESOLVE. ALL OF THESE RECORDS ARE PUBLIC INFORMATION AND AVAILABLE FOR VIEWING UPON REQUEST AT 1275 MAPLE HILL COURT.**

F=FREE CHLORINE; T=TOTAL CHLORINE; C=COMBINED CHLORINE (AS CHLORAMINES); HYD=FIRE HYDRANT

2012 ANNUAL WATER QUALITY SUMMARY REPORT

DATE	TIME	AWQI	PARAMETER	STANDARD	RESULT (mg/L)	LOCATION	RESOLUTION
MAR 11, 2012	10:42	105332	COMBINED CHLORINE	0.25mg/L	F: 0.03 T: 0.13 C: 0.10	HYD – 402 MULOCK DR	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • MAR 11, 2012/12:30 • F: 0.04 • T: 0.86 • C: 0.82
MAR 14, 2012	08:00	105361	COMBINED CHLORINE	0.25mg/L	F: 0.02 T: 0.19 C: 0.17	HYD – KENT DR @ PENROSE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • MAR 14, 2012/13:30 • F: 0.09 • T: 1.69 • C: 1.60
MAR 16, 2012	13:15	105396	COMBINED CHLORINE	0.25mg/L	F: 0.01 T: 0.13 C: 0.12	HYD – 619 STEVEN CRT	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • MAR 16, 2012/13:45 • F: 0.06 • T: 1.62 • C: 1.56
MAR 19, 2012	12:50	105407	COMBINED CHLORINE	0.25mg/L	F: 0.00 T: 0.06 C: 0.06	HYD – CANE PKWY N/E OF WILLIAM ROE BLVD	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • MAR 19, 2012/13:25 • F: 0.06 • T: 1.90 • C: 1.84
MAR 20, 2012	13:25	105426	COMBINED CHLORINE	0.25mg/L	F: 0.02 T: 0.15 C: 0.13	HYD – 121 SAWMILL VALLEY DR	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • MAR 20, 2012/14:30 • F: 0.04 • T: 0.84 • C: 0.80
MAR 20, 2012	09:40	105414	COMBINED CHLORINE	0.25mg/L	F: 0.01 T: 0.06 C: 0.05	HYD – 864 TEGAL PLACE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • MAR 20, 2012/13:30 • F: 0.00 • T: 0.34 • C: 0.34

****ALL DATES WITH ASTERISK (*) INVOLVED SEVERAL OTHER ADVERSE RESIDUALS THAT WERE RECORDED/REPORTED DURING THE PERIODS OF FLUSHING TO RESOLVE. ALL OF THESE RECORDS ARE PUBLIC INFORMATION AND AVAILABLE FOR VIEWING UPON REQUEST AT 1275 MAPLE HILL COURT***

2012 ANNUAL WATER QUALITY SUMMARY REPORT

DATE	TIME	AWQI	PARAMETER	STANDARD	RESULT (mg/L)	LOCATION	RESOLUTION
MAR 21, 2012	11:00	105433	COMBINED CHLORINE	0.25mg/L	F: 0.01 T: 0.11 C: 0.10	HYD – 931 SCHAEFFER OUTLOOK	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • MAR 21, 2012/12:20 • F: 0.03 • T: 0.78 • C: 0.75
MAR 23, 2012	13:05	105466	COMBINED CHLORINE	0.25mg/L	F: 0.03 T: 0.25 C: 0.22	HYD – 603 PLANTATION GATE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • MAR 23, 2012/13:35 • F: 0.02 • T: 0.64 • C: 0.62
MAR 30, 2012	10:45	105515	COMBINED CHLORINE	0.25mg/L	F: 0.01 T: 0.22 C: 0.21	HYD – CANE PKWY E OF WILLIAM ROE BLVD	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • MAR 30, 2012/11:15 • F: 0.07 • T: 1.14 • C: 1.07
APR 2, 2012	09:45	105524	COMBINED CHLORINE	0.25mg/L	F: 0.01 T: 0.14 C: 0.13	HYD – 153 ASPENWOOD	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • APR 2, 2012/10:20 • F: 0.02 • T: 0.50 • C: 0.48
APR 10, 2012	10:55	105598	COMBINED CHLORINE	0.25mg/L	F: 0.01 T: 0.13 C: 0.12	2 ND HYD E OF BAYVIEW ON STONEHAVEN	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • APR 10, 2012 • F: 0.00 • T: 0.42 • C: 0.42
APR 16, 2012	11:00	105654	COMBINED CHLORINE	0.25mg/L	F: 0.01 T: 0.13 C: 0.12	HYD – 280 WILLIAM ROE BLVD	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • APR 16, 2012/12:00 • F: 0.02 • T: 0.36 • C: 0.34

***ALL DATES WITH ASTERISK (*) INVOLVED SEVERAL OTHER ADVERSE RESIDUALS THAT WERE RECORDED/REPORTED DURING THE PERIODS OF FLUSHING TO RESOLVE. ALL OF THESE RECORDS ARE PUBLIC INFORMATION AND AVAILABLE FOR VIEWING UPON REQUEST AT 1275 MAPLE HILL COURT.**

F=FREE CHLORINE; T=TOTAL CHLORINE; C=COMBINED CHLORINE (AS CHLORAMINES); HYD=FIRE HYDRANT

2012 ANNUAL WATER QUALITY SUMMARY REPORT

DATE	TIME	AWQI	PARAMETER	STANDARD	RESULT (mg/L)	LOCATION	RESOLUTION
APR 17, 2012	08:10	105665	COMBINED CHLORINE	0.25mg/L	F: 0.02 T: 0.17 C: 0.15	HYD – 600 STONEDHAVEN AVE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • APR 17, 2012 • F: 0.02 • T: 0.95 • C: 0.93
APR 19, 2012	12:55	105698	COMBINED CHLORINE	0.25mg/L	F: 0.02 T: 0.05 C: 0.03	HYD – 151 THOMS CRES	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • APR 19, 2012/15:00 • F: 0.01 • T: 0.29 • C: 0.28
APR 24, 2012	14:15	105748	COMBINED CHLORINE	0.25mg/L	F: 0.02 T: 0.18 C: 0.16	HYD – 95 WILLIAM ROE BLVD	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • APR 24, 2012/14:45 • F: 0.08 • T: 1.24 • C: 1.16
*APR 25, 2012	09:00	105771	COMBINED CHLORINE	0.25mg/L	F: 0.02 T: 0.18 C: 0.16	HYD – 280 WILLIAM ROE BLVD	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • APR 25, 2012/09:15 • F: 0.02 • T: 0.49 • C: 0.47
APR 26, 2012	09:00	105778	COMBINED CHLORINE	0.25mg/L	F: 0.01 T: 0.25 C: 0.24	HYD – 183 HODGSON	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • APR 26, 2012/09:50 • F: 0.02 • T: 0.59 • C: 0.57
APR 26, 2012	09:30	105793	COMBINED CHLORINE	0.25mg/L	F: 0.01 T: 0.20 C: 0.19	HYD – 493 WOODSPRING AVE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • APR 26, 2012/10:45 • F: 0.06 • T: 0.77 • C: 0.71

****ALL DATES WITH ASTERISK (*) INVOLVED SEVERAL OTHER ADVERSE RESIDUALS THAT WERE RECORDED/REPORTED DURING THE PERIODS OF FLUSHING TO RESOLVE. ALL OF THESE RECORDS ARE PUBLIC INFORMATION AND AVAILABLE FOR VIEWING UPON REQUEST AT 1275 MAPLE HILL COURT***

2012 ANNUAL WATER QUALITY SUMMARY REPORT

DATE	TIME	AWQI	PARAMETER	STANDARD	RESULT (mg/L)	LOCATION	RESOLUTION
APR 27, 2012	08:50	105794	COMBINED CHLORINE	0.25mg/L	F: 0.00 T: 0.20 C: 0.20	SS-15 (OPP 814 WOODSPRING AVE)	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • APR 27, 2012/14:00 • F: 0.03 • T: 1.41 • C: 1.38
*APR 27, 2012	08:42	105795	COMBINED CHLORINE	0.25mg/L	F: 0.02 T: 0.04 C: 0.02	HYD – 531 SANDFORD ST	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • APR 27, 2012/11:05 • F: 0.01 • T: 0.88 • C: 0.87
*MAY 3, 2012	08:50	105841	COMBINED CHLORINE	0.25mg/L	F: 0.04 T: 0.23 C: 0.19	HYD – 183 HODGSON	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • MAY 3, 2012/09:30 • F: 0.04 • T: 0.44 • C: 0.40
MAY 4, 2012	08:20	105851	COMBINED CHLORINE	0.25mg/L	F: 0.03 T: 0.17 C: 0.14	HYD – 81 JULIA CRT	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • MAY 4, 2012/09:00 • F: 0.06 • T: 0.99 • C: 0.93
MAY 7, 2012	10:25	105871	COMBINED CHLORINE	0.25mg/L	F: 0.00 T: 0.03 C: 0.00	HYD – CANE PKWY E OF WILLIAM ROE BLVD	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • MAY 7, 2012/11:25 • F: 0.05 • T: 0.56 • C: 0.51
MAY 7, 2012	14:15	105880	COMBINED CHLORINE	0.25mg/L	F: 0.01 T: 0.14 C: 0.13	HYD – OPP 540 BRISTOL RD	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • MAY 7, 2012/15:45 • F: 0.01 • T: 0.37 • C: 0.36

***ALL DATES WITH ASTERISK (*) INVOLVED SEVERAL OTHER ADVERSE RESIDUALS THAT WERE RECORDED/REPORTED DURING THE PERIODS OF FLUSHING TO RESOLVE. ALL OF THESE RECORDS ARE PUBLIC INFORMATION AND AVAILABLE FOR VIEWING UPON REQUEST AT 1275 MAPLE HILL COURT.**

F=FREE CHLORINE; T=TOTAL CHLORINE; C=COMBINED CHLORINE (AS CHLORAMINES); HYD=FIRE HYDRANT

2012 ANNUAL WATER QUALITY SUMMARY REPORT

DATE	TIME	AWQI	PARAMETER	STANDARD	RESULT (mg/L)	LOCATION	RESOLUTION
MAY 8, 2012	10:50	105895	COMBINED CHLORINE	0.25mg/L	F: 0.02 T: 0.04 C: 0.02	HYD – CANE PKWY E OF WILLIAM ROE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • MAY 8, 2012/11:50 • F: 0.03 • T: 0.62 • C: 0.59
*MAY 8, 2012	14:00	105897	COMBINED CHLORINE	0.25mg/L	F: 0.02 T: 0.24 C: 0.22	HYD – 512 LONDON RD	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • MAY 8, 2012/14:30 • F: 0.01 • T: 0.35 • C: 0.34
*MAY 15, 2012	10:15	105953	COMBINED CHLORINE	0.25mg/L	F: 0.01 T: 0.05 C: 0.04	HYD – BAYVIEW AVE OPP MULOCK CRT	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • MAY 15, 2012/11:20 • F: 0.03 • T: 0.70 • C: 0.67
MAY 16, 2012	08:35	105972	COMBINED CHLORINE	0.25mg/L	F: 0.00 T: 0.11 C: 0.11	HYD – SPILLETTE CRT	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • MAY 16, 2012/09:35 • F: 0.01 • T: 0.57 • C: 0.56
MAY 17, 2012	08:10	105991	COMBINED CHLORINE	0.25mg/L	F: 0.02 T: 0.08 C: 0.06	HYD – 533 SANDFORD ST	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • MAY 17, 2012/08:50 • F: 0.02 • T: 0.54 • C: 0.52
MAY 17, 2012	09:40	105995	COMBINED CHLORINE	0.25mg/L	F: 0.01 T: 0.09 C: 0.08	HYD – 459 DORCHESTER CRT	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • MAY 17, 2012/10:25 • F: 0.01 • T: 0.66 • C: 0.65

***ALL DATES WITH ASTERISK (*) INVOLVED SEVERAL OTHER ADVERSE RESIDUALS THAT WERE RECORDED/REPORTED DURING THE PERIODS OF FLUSHING TO RESOLVE. ALL OF THESE RECORDS ARE PUBLIC INFORMATION AND AVAILABLE FOR VIEWING UPON REQUEST AT 1275 MAPLE HILL COURT**

2012 ANNUAL WATER QUALITY SUMMARY REPORT

DATE	TIME	AWQI	PARAMETER	STANDARD	RESULT (mg/L)	LOCATION	RESOLUTION
MAY 17, 2012	13:40	106005	COMBINED CHLORINE	0.25mg/L	F: 0.01 T: 0.19 C: 0.18	HYD ADJ 515 MULOCK DR	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • MAY 17, 2012/14:10 • F: 0.04 • T: 0.85 • C: 0.81
MAY 18, 2012	08:45	106021	COMBINED CHLORINE	0.25mg/L	F: 0.02 T: 0.13 C: 0.11	HYD – 459 DORCHESTER CRT	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • MAY 18, 2012/09:45 • F: 0.01 • T: 0.48 • C: 0.47
*MAY 31, 2012	09:55	106195	COMBINED CHLORINE	0.25mg/L	F: 0.00 T: 0.08 C: 0.08	HYD – 507 MULOCK	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • MAY 31, 2012/11:45 • F: 0.02 • T: 0.57 • C: 0.55
*JUNE 4, 2012	08:50	106238	COMBINED CHLORINE	0.25mg/L	F: 0.01 T: 0.12 C: 0.11	HJYD – 507 MULOCK	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JUNE 4, 2012/11:00 • F: 0.01 • T: 0.47 • C: 0.46
*JUNE 5, 2012	08:25	106263	COMBINED CHLORINE	0.25mg/L	F: 0.01 T: 0.13 C: 0.12	HYD – 507 MULOCK	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JUNE 5, 2012/13:15 • F: 0.02 • T: 0.59 • C: 0.57
*JUNE 6, 2012	09:22	106297	COMBINED CHLORINE	0.25mg/L	F: 0.04 T: 0.09 C: 0.05	HYD – 507 MULOCK	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JUNE 6, 2012/12:22 • F: 0.02 • T: 0.67 • C: 0.65

***ALL DATES WITH ASTERISK (*) INVOLVED SEVERAL OTHER ADVERSE RESIDUALS THAT WERE RECORDED/REPORTED DURING THE PERIODS OF FLUSHING TO RESOLVE. ALL OF THESE RECORDS ARE PUBLIC INFORMATION AND AVAILABLE FOR VIEWING UPON REQUEST AT 1275 MAPLE HILL COURT.**

F=FREE CHLORINE; T=TOTAL CHLORINE; C=COMBINED CHLORINE (AS CHLORAMINES); HYD=FIRE HYDRANT

2012 ANNUAL WATER QUALITY SUMMARY REPORT

DATE	TIME	AWQI	PARAMETER	STANDARD	RESULT (mg/L)	LOCATION	RESOLUTION
*JUNE 7, 2012	09:25	106320	COMBINED CHLORINE	0.25mg/L	F: 0.02 T: 0.10 C: 0.08	HYD – 507 MULOCK	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JUNE 7, 2012/10:25 • F: 0.03 • T: 0.61 • C: 0.58
JUNE 8, 2012	09:22	106345	COMBINED CHLORINE	0.25mg/L	F: 0.02 T: 0.14 C: 0.12	HYD – 507 MULOCK	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JUNE 8, 2012/09:52 • F: 0.06 • T: 0.63 • C: 0.57
*JUNE 12, 2012	08:50	106394	COMBINED CHLORINE	0.25mg/L	F: 0.02 T: 0.26 C: 0.24	1 ST HYD E OF SANDFORD ON MULOCK	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JUNE 12, 2012/09:45 • F: 0.14 • T: 1.99 • C: 1.78
JUNE 12, 2012	10:00	106397	COMBINED CHLORINE	0.25mg/L	F: 0.03 T: 0.05 C: 0.02	HYD – 77 DAVIS DR	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JUNE 12, 2012/12:35 • F: 0.12 • T: 0.99 • C: 0.87
JUNE 13, 2012	08:35	106413	COMBINED CHLORINE	0.25mg/L	F: 0.03 T: 0.07 C: 0.04	HYD – 79 DAVIS DR	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JUNE 13, 2012/09:15 • F: 0.05 • T: 1.05 • C: 1.00

***ALL DATES WITH ASTERISK (*) INVOLVED SEVERAL OTHER ADVERSE RESIDUALS THAT WERE RECORDED/REPORTED DURING THE PERIODS OF FLUSHING TO RESOLVE. ALL OF THESE RECORDS ARE PUBLIC INFORMATION AND AVAILABLE FOR VIEWING UPON REQUEST AT 1275 MAPLE HILL COURT**

2012 ANNUAL WATER QUALITY SUMMARY REPORT

DATE	TIME	AWQI	PARAMETER	STANDARD	RESULT (mg/L)	LOCATION	RESOLUTION
*JUNE 13, 2012	09:30	106416	COMBINED CHLORINE	0.25mg/L	F: 0.01 T: 0.08 C: 0.07	HYD – 600 STONEHAVEN	<ul style="list-style-type: none"> FLUSHED SYSTEM & RESTORED RESIDUAL JUNE 13, 2012/11:50 F: 0.01 T: 0.39 C: 0.38
JUNE 18, 2012	10:10	106491	COMBINED CHLORINE	0.25mg/L	F: 0.00 T: 0.08 C: 0.08	HYD – 162 MATTHEW BOYD CRES	<ul style="list-style-type: none"> FLUSHED SYSTEM & RESTORED RESIDUAL JUNE 18, 2012/12:00 F: 0.06 T: 0.43 C: 0.37
*JUNE 18, 2012	10:15	106492	COMBINED CHLORINE	0.25mg/L	F: 0.02 T: 0.11 C: 0.09	HYD ON MAIN ST N FRONTING MAX STILES PARK	<ul style="list-style-type: none"> FLUSHED SYSTEM & RESTORED RESIDUAL JUNE 18, 2012/11:45 F: 0.03 T: 0.29 C: 0.26
*JUNE 18, 2012	10:15	106494	COMBINED CHLORINE	0.25mg/L	F: 0.03 T: 0.27 C: 0.24	SS-08 (ADJ 238 LORNE AVE)	<ul style="list-style-type: none"> FLUSHED SYSTEM & RESTORED RESIDUAL JUNE 18, 2012/11:15 F: 0.05 T: 0.43 C: 0.38
JUNE 19, 2012	09:55	106524	COMBINED CHLORINE	0.25mg/L	F: 0.01 T: 0.20 C: 0.19	HYD @ E END OF NEWPARK BLVD	<ul style="list-style-type: none"> FLUSHED SYSTEM & RESTORED RESIDUAL JUNE 19, 2012/10:25 F: 0.05 T: 0.99 C: 0.94
*JUNE 19, 2012	13:15	106532	COMBINED CHLORINE	0.25mg/L	F: 0.00 T: 0.00 C: 0.00	HYD – 87 MULOCK DR	<ul style="list-style-type: none"> FLUSHED SYSTEM & RESTORED RESIDUAL JUNE 19, 2012/17:10 F: 0.17 T: 2.10 C: 1.93

***ALL DATES WITH ASTERISK (*) INVOLVED SEVERAL OTHER ADVERSE RESIDUALS THAT WERE RECORDED/REPORTED DURING THE PERIODS OF FLUSHING TO RESOLVE. ALL OF THESE RECORDS ARE PUBLIC INFORMATION AND AVAILABLE FOR VIEWING UPON REQUEST AT 1275 MAPLE HILL COURT.**

F=FREE CHLORINE; T=TOTAL CHLORINE; C=COMBINED CHLORINE (AS CHLORAMINES); HYD=FIRE HYDRANT

2012 ANNUAL WATER QUALITY SUMMARY REPORT

DATE	TIME	AWQI	PARAMETER	STANDARD	RESULT (mg/L)	LOCATION	RESOLUTION
JUNE 20, 2012	09:30	106552	COMBINED CHLORINE	0.25mg/L	F: 0.01 T: 0.16 C: 0.15	HYD – 560 MULOCK DR	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JUNE 20, 2012/10:00 • F: 0.03 • T: 0.41 • C: 0.38
*JUNE 20, 2012	10:12	106553	COMBINED CHLORINE	0.25mg/L	F: 0.02 T: 0.24 C: 0.22	HYD – 605 BROOKER RIDGE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JUNE 20, 2012/10:30 • F: 0.04 • T: 0.38 • C: 0.34
*JUNE 21, 2012	13:05	106591	COMBINED CHLORINE	0.25mg/L	F: 0.01 T: 0.12 C: 0.11	HYD – NW CORNER BRISTOL/DORCHESTER	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JUNE 21, 2012/14:20 • F: 0.02 • T: 0.28 • C: 0.26
*JUNE 24, 2012	11:10	106643	COMBINED CHLORINE	0.25mg/L	F: 0.02 T: 0.04 C: 0.02	HYD – MAIN ST N @ MAX STILES PARK	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JUNE 24, 2012/15:10 • F: 0.02 • T: 0.35 • C: 0.33
JUNE 25, 2012	13:15	106674	COMBINED CHLORINE	0.25mg/L	F: 0.01 T: 0.21 C: 0.20	HYD OPP 142 MAURICE CRT	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JUNE 25, 2012/15:15 • F: 0.01 • T: 0.41 • C: 0.40

****ALL DATES WITH ASTERISK (*) INVOLVED SEVERAL OTHER ADVERSE RESIDUALS THAT WERE RECORDED/REPORTED DURING THE PERIODS OF FLUSHING TO RESOLVE. ALL OF THESE RECORDS ARE PUBLIC INFORMATION AND AVAILABLE FOR VIEWING UPON REQUEST AT 1275 MAPLE HILL COURT***

2012 ANNUAL WATER QUALITY SUMMARY REPORT

DATE	TIME	AWQI	PARAMETER	STANDARD	RESULT (mg/L)	LOCATION	RESOLUTION
JUNE 28, 2012		106775	COMBINED CHLORINE	0.25mg/L	F: 0.05 T: 0.28 C: 0.23	HYD – 567 DAVIS DR	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JUNE 28, 2012/11:00 • F: 0.03 • T: 0.46 • C: 0.43 • INITIAL READINGS WERE NOT ACTUALLY ADVERSE DUE TO FREE (F) RESIDUAL BEING > 0.05mg/L
*JUNE 28, 2012	08:45	106741	COMBINED CHLORINE	0.25mg/L	F: 0.03 T: 0.19 C: 0.16	HYD – 367 SALISBURY LN	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JUNE 28, 2012/13:15 • F: 0.05 • T: 0.53 • C: 0.48
JULY 3, 2012	11:50	106822	COMBINED CHLORINE	0.25mg/L	F: 0.03 T: 0.15 C: 0.12	Hyd – 390 ASTOR DRIVE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JULY 3, 2012/12:30 • F: 0.10 • T: 0.53 • C: 0.43
*JULY 3, 2012	13:10	106825	COMBINED CHLORINE	0.25 mg/L	F: 0.02 T: 0.12 C: 0.10	HYD – 93 KINGSTON	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JULY 3, 2012/15:10 • F: 0.01 • T: 0.34 • C: 0.33
JULY 9, 2012	09:30	106970	COMBINED CHLORINE	0.25 mg/L	F: 0.02 T: 0.15 C: 0.13	SAMPLE STATION SS-27 – OPPOSITE 700 COLLEGE MANOR DRIVE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JULY 9, 2012/10:25 • F: 0.04 • T: 0.35 • C: 0.31

***ALL DATES WITH ASTERISK (*) INVOLVED SEVERAL OTHER ADVERSE RESIDUALS THAT WERE RECORDED/REPORTED DURING THE PERIODS OF FLUSHING TO RESOLVE. ALL OF THESE RECORDS ARE PUBLIC INFORMATION AND AVAILABLE FOR VIEWING UPON REQUEST AT 1275 MAPLE HILL COURT.**

F=FREE CHLORINE; T=TOTAL CHLORINE; C=COMBINED CHLORINE (AS CHLORAMINES); HYD=FIRE HYDRANT

2012 ANNUAL WATER QUALITY SUMMARY REPORT

DATE	TIME	AWQI	PARAMETER	STANDARD	RESULT (mg/L)	LOCATION	RESOLUTION
JULY 10, 2012	08:30	106984	COMBINED CHLORINE	0.25 mg/L	F: 0.02 T: 0.07 C: 0.05	SAMPLE STATION SS-10 – LINDSAY AVE (ADJ. 175 PENN AVE)	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JULY 10, 2012/13:30 • F: 0.04 • T: 0.69 • C: 0.65
JULY 12, 2012	09:55	107061	COMBINED CHLORINE	0.25 mg/L	F: 0.03 T: 0.21 C: 0.18	HYDRANT AT 329 PRIMROSE LANE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JULY 12, 2012/13:30 • F: 0.08 • T: 0.68 • C: 0.60
*JULY 12, 2012	10:00	107062	COMBINED CHLORINE	0.25 mg/L	F: 0.03 T: 0.08 C: 0.05	HYD AT 770 FIRTH COURT	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JULY 13, 2012 / 10:30 • F: 0.04 • T: 0.30 • C: 0.26
JULY 12, 2012	10:10	107064	COMBINED CHLORINE	0.25 mg/L	F: 0.02 T: 0.13 C: 0.11	HYD AT 183 HODGSON DRIVE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JULY 13, 2012 / 10:45 • F: 0.02 • T:0.35 • C: 0.33
JULY 12, 2012	15:05	107077	COMBINED CHLORINE	0.25 mg/L	F: 0.02 T: 0.14 C: 0.12	HYD AT 7 NEWPARK BLVD	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JULY 12, 2012/16:00 • F: 0.02 • T: 0.55 • C: 0.53
*JULY 13, 2012	13:00	107117	COMBINED CHLORINE	0.25 mg/L	F: 0.01 T: 0.06 C: 0.05	HYD AT 183 HODGSON DRIVE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JULY 16, 2012/16:30 • F: 0.04 • T: 0.36 • C: 0.32

***ALL DATES WITH ASTERISK (*) INVOLVED SEVERAL OTHER ADVERSE RESIDUALS THAT WERE RECORDED/REPORTED DURING THE PERIODS OF FLUSHING TO RESOLVE. ALL OF THESE RECORDS ARE PUBLIC INFORMATION AND AVAILABLE FOR VIEWING UPON REQUEST AT 1275 MAPLE HILL COURT**

2012 ANNUAL WATER QUALITY SUMMARY REPORT

DATE	TIME	AWQI	PARAMETER	STANDARD	RESULT (mg/L)	LOCATION	RESOLUTION
JULY 15, 2012	10:10	107147	COMBINED CHLORINE	0.25 mg/L	F: 0.00 T: 0.15 C: 0.15	HYD FRONTING 183 HODGSON DRIVE	<ul style="list-style-type: none"> FLUSHED SYSTEM & RESTORE RESIDUAL JULY 15, 2012/11:10 F: 0.02 T: 0.33 C:0.31
*JULY 16, 2012	08:10	107159	COMBINED CHLORINE	0.25 mg/L	F: 0.02 T: 0.11 C: 0.09	HYD AT 183 HODGSON DRIVE	<ul style="list-style-type: none"> FLUSHED SYSTEM & RESTORED RESIDUAL JULY 16, 2012/10:10 F: 0.03 T: 0.36 C: 0.33
*JULY 16, 2012	08:45	107160	COMBINED CHLORINE	0.25 mg/L	F: 0.03 T: 0.17 C: 0.14	HYD OPP 600 COLLEGE MANOR DRIVE	<ul style="list-style-type: none"> FLUSHED SYSTEM & RESTORED RESIDUAL JULY 16, 2012/12:40 F: 0.03 T: 0.73 C: 0.70
JULY 16, 2012	11:00	107172	COMBINED CHLORINE	0.25 mg/L	F: 0.01 T:0.15 C: 0.14	HYD AT 343 KIRBY CRESCENT	<ul style="list-style-type: none"> FLUSHED SYSTEM & RESTORED RESIDUAL JULY 16, 2012 F: 0.01 T:0.62 C: 0.61
*JULY 16, 2012	14:30	107185	COMBINED CHLORINE	0.25 mg/L	F: 0.02 T: 0.20 C: 0.18	HYD FRONTING 345 DENNIE AVE	<ul style="list-style-type: none"> FLUSHED SYSTEM & RESTORED RESIDUAL JULY 17, 2012/16:00 F: 0.04 T: 0.31 C: 0.27
JULY 17, 2012	10:20	107211	COMBINED CHLORINE	0.25 mg/L	F: 0.03 T: 0.22 C: 0.19	HYD AT 325 DENNIE AVE	<ul style="list-style-type: none"> FLUSHED SYSTEM & RESTORED RESIDUAL JULY 17, 2012/11:04 F: 0.02 T: 0.71 C: 0.69

***ALL DATES WITH ASTERISK (*) INVOLVED SEVERAL OTHER ADVERSE RESIDUALS THAT WERE RECORDED/REPORTED DURING THE PERIODS OF FLUSHING TO RESOLVE. ALL OF THESE RECORDS ARE PUBLIC INFORMATION AND AVAILABLE FOR VIEWING UPON REQUEST AT 1275 MAPLE HILL COURT.**

F=FREE CHLORINE; T=TOTAL CHLORINE; C=COMBINED CHLORINE (AS CHLORAMINES); HYD=FIRE HYDRANT

2012 ANNUAL WATER QUALITY SUMMARY REPORT

DATE	TIME	AWQI	PARAMETER	STANDARD	RESULT (mg/L)	LOCATION	RESOLUTION
JULY 19, 2012	10:00	107308	COMBINED CHLORINE	0.25 mg/L	F: 0.01 T: 0.12 C: 0.11	HYD AT 183 HODGSON DRIVE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JULY 19, 2012/10:30 • F: 0.02 • T: 0.32 • C: 0.30
*JULY 20, 2012	09:30	107336	COMBINED CHLORINE	0.25 mg/L	F: 0.02 T: 0.10 C: 0.08	HYD WEST OF YONGE ON ASPENWOOD DRIVE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JULY 20, 2012/11:00 • F: 0.02 • T: 0.29 • C: 0.27
JULY 23, 2012	08:10	107368	COMBINED CHLORINE	0.25 mg/L	F: 0.01 T: 0.17 C: 0.16	HYD AT DEAD END OF NEWPARK DR	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JULY 23, 2012/09:30 • F: 0.03 • T: 0.77 • C: 0.74
*JULY 23, 2012	10:00	107372	COMBINED CHLORINE	0.25 mg/L	F: 0.03 T: 0.26 C: 0.23	HYD AT 18075 YONGE ST	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JULY 23, 2012/11:00 • F: 0.13 • T: 1.37 • C: 1.24
JULY 24, 2012	08:30	107407	COMBINED CHLORINE	0.25 mg/L	F: 0.01 T: 0.23 C: 0.22	HYD AT 427 BRISTOL ROAD	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JULY 24, 2012 / 09:10 • F: 0.04 • T: 0.58 • C: 0.54
JULY 24, 2012	13:05	107419	COMBINED CHLORINE	0.25 mg/L	F: 0.03 T: 0.26 C: 0.23	HYD OPP 540 BRISTOL RD	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JULY 24, 2012 / 13:30 • F: 0.03 • T: 0.44 • C: 0.41

***ALL DATES WITH ASTERISK (*) INVOLVED SEVERAL OTHER ADVERSE RESIDUALS THAT WERE RECORDED/REPORTED DURING THE PERIODS OF FLUSHING TO RESOLVE. ALL OF THESE RECORDS ARE PUBLIC INFORMATION AND AVAILABLE FOR VIEWING UPON REQUEST AT 1275 MAPLE HILL COURT**

2012 ANNUAL WATER QUALITY SUMMARY REPORT

DATE	TIME	AWQI	PARAMETER	STANDARD	RESULT (mg/L)	LOCATION	RESOLUTION
JULY 25, 2012	11:30	107460	COMBINED CHLORINE	0.25 mg/L	F: 0.04 T: 0.23 C: 0.19	HYD AT 619 STEVEN COURT	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JULY 25, 2012 / 12:00 • F: 0.15 • T: 1.48 • C: 1.33
JULY 25, 2012	14:50	107840	COMBINED CHLORINE	0.25 mg/L	F: 0.02 T: 0.26 C: 0.24	HYD FRONTING 18075 YONGE ST	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JULY 25, 2012 / 15:50 • F: 0.08 • T: 1.58 • C: 1.50
*JULY 27, 2012	10:20	107537	COMBINED CHLORINE	0.25 mg/L	F: 0.01 T: 0.07 C: 0.06	2 ND HYD WEST OF YONGE ON ASPENWOOD	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JULY 27, 2012 / 11:20 • F: 0.02 • T: 0.34 • C: 0.32
*JULY 27, 2012	14:00	107545	COMBINED CHLORINE	0.25 mg/L	F: 0.04 T: 0.13 C: 0.09	HYD AT 513 KEITH AVE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JULY 30, 2012 • F: 0.07 • T: 0.34 • C: 0.27
*JULY 30, 2012	13:30	107575	COMBINED CHLORINE	0.25 mg/L	F: 0.01 T: 0.11 C: 0.10	HYD AT 513 KEITH AVE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JULY 30, 2012 / 14:30 • F: 0.01 • T: 0.84 • C: 0.83
JULY 31, 2012	11:15	107592	COMBINED CHLORINE	0.25 mg/L	F: 0.02 T: 0.19 C: 0.17	HYD FRONTING 512 LONDON RD	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • JULY 31, 2012 / 12:15 • F: 0.05 • T: 0.47 • C: 0.42

***ALL DATES WITH ASTERISK (*) INVOLVED SEVERAL OTHER ADVERSE RESIDUALS THAT WERE RECORDED/REPORTED DURING THE PERIODS OF FLUSHING TO RESOLVE. ALL OF THESE RECORDS ARE PUBLIC INFORMATION AND AVAILABLE FOR VIEWING UPON REQUEST AT 1275 MAPLE HILL COURT.**

F=FREE CHLORINE; T=TOTAL CHLORINE; C=COMBINED CHLORINE (AS CHLORAMINES); HYD=FIRE HYDRANT

2012 ANNUAL WATER QUALITY SUMMARY REPORT

DATE	TIME	AWQI	PARAMETER	STANDARD	RESULT (mg/L)	LOCATION	RESOLUTION
AUG 1, 2012	10:05	107637	COMBINED CHLORINE	0.25 mg/L	F: 0.02 T: 0.20 C: 0.18	HYD ON BRISTOL ROAD AT DORCHESTER ST	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • AUG 1, 2012 / 10:35 • F: 0.05 • T: 0.25 • C: 0.20
AUG 1, 2012	11:15	107640	COMBINED CHLORINE	0.25 mg/L	F: 0.03 T: 0.22 C: 0.19	HYD AT 490 HEWITT CIRCLE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • AUG 1, 2012 / 11:15 • F: 0.03 • T: 0.22 • C: 0.19
AUG 2, 2012	10:57	107662	COMBINED CHLORINE	0.25 mg/L	F: 0.04 T: 0.11 C: 0.07	HYD AT 365 MEEGAN COURT	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • AUG 2, 2012 / 11:26 • F: 0.09 • T: 0.52 • C: 0.43
AUG 3, 2012	09:15	107679	COMBINED CHLORINE	0.25 mg/L	F: 0.03 T: 0.25 F: 0.22	HYD FRONTING 310 FLAGSTONE WAY	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • AUG 3, 2012 / 09:15 • F: 0.03 • T: 0.25 • C: 0.22
AUG 3, 2012	10:50	107681	COMBINED CHLORINE	0.25 mg/L	F: 0.00 T: 0.12 C: 0.12	HYD AT 619 STEVENS COURT	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • AUG 3, 2012 / 11:35 • F: 0.01 • T: 0.60 • C: 0.59
AUG 7, 2012	10:00	107711	COMBINED CHLORINE	0.25 mg/L	F: 0.02 T: 0.22 C: 0.20	HYD AT 239 HODGSON DRIVE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • AUG 7, 2012 / 11:30 • F: 0.02 • T: 0.33 • C: 0.31

****ALL DATES WITH ASTERISK (*) INVOLVED SEVERAL OTHER ADVERSE RESIDUALS THAT WERE RECORDED/REPORTED DURING THE PERIODS OF FLUSHING TO RESOLVE. ALL OF THESE RECORDS ARE PUBLIC INFORMATION AND AVAILABLE FOR VIEWING UPON REQUEST AT 1275 MAPLE HILL COURT***

2012 ANNUAL WATER QUALITY SUMMARY REPORT

DATE	TIME	AWQI	PARAMETER	STANDARD	RESULT (mg/L)	LOCATION	RESOLUTION
AUG 7, 2012	11:15	107712	COMBINED CHLORINE	0.25 mg/L	F: 0.01 T: 0.11 C: 0.10	HYD FRONTING 367 SALISBURY LANE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • AUG 7, 2012 / 12:40 • F: 0.01 • T: 0.36 • C: 0.35
AUG 7, 2012	14:00	107719	COMBINED CHLORINE	0.25 mg/L	F: 0.01 T: 0.22 C: 0.21	HYD FRONTING 735 FIRTH COURT	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • AUG 7, 2012 / 15:00 • F: 0.03 • T: 0.84 • C: 0.81
AUG 8, 2012	10:00	107746	COMBINED CHLORINE	0.25 mg/L	F: 0.01 T: 0.24 C: 0.23	HYD AT 549 MCBEAN AVE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • AUG 8, 2012 / 11:45 • F: 0.01 • T: 0.51 • C: 0.50
AUG 8, 2012	10:45	107749	COMBINED CHLORINE	0.25 mg/L	F: 0.02 T: 0.18 C: 0.16	HYD AT 197 BILLINGS CRESCENT	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • AUG 8, 2012 / 11:55 • F: 0.04 • T: 0.44 • C: 0.40
AUG 8, 2012	12:20	107763	COMBINED CHLORINE	0.25 mg/L	F: 0.02 T: 0.04 C: 0.02	HYD AT 846 FILIBERTO COURT	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • AUG 8, 2012 / 13:30 • F: 0.02 • T: 0.32 • C: 0.30
AUG 9, 2012	08:45	107779	COMBINED CHLORINE	0.25 mg/L	F: 0.02 T: 0.17 C: 0.15	HYD AT 73 GRANT BLIGHT CRESCENT	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • AUG 9, 2012 / 09:20 • F: 0.07 • T: 0.71 • C: 0.64

***ALL DATES WITH ASTERISK (*) INVOLVED SEVERAL OTHER ADVERSE RESIDUALS THAT WERE RECORDED/REPORTED DURING THE PERIODS OF FLUSHING TO RESOLVE. ALL OF THESE RECORDS ARE PUBLIC INFORMATION AND AVAILABLE FOR VIEWING UPON REQUEST AT 1275 MAPLE HILL COURT.**

F=FREE CHLORINE; T=TOTAL CHLORINE; C=COMBINED CHLORINE (AS CHLORAMINES); HYD=FIRE HYDRANT

2012 ANNUAL WATER QUALITY SUMMARY REPORT

DATE	TIME	AWQI	PARAMETER	STANDARD	RESULT (mg/L)	LOCATION	RESOLUTION
AUG 9, 2012	13:15	107783	COMBINED CHLORINE	0.25 mg/L	F: 0.01 T: 0.17 C: 0.16	HYD AT 367 SALISBURY LANE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • AUG 9, 2012 / 14:15 • F: 0.01 • T: 0.33 • C: 0.32
AUG 10, 2012	08:50	107800	COMBINED CHLORINE	0.25 mg/L	F:0.02 T:0.18 C: 0.16	HYD AT 620 HAINES ROAD	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • AUG 10, 2012 / 10:15 • F:0.03 • T: 0.30 • C:0.28
AUG 14, 2012	09:20	107862	COMBINED CHLORINE	0.25 mg/L	F: 0.02 T: 0.23 C:0.21	HYD AT 954 BEST CIRCLE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • AUG 14, 2012 / 10:50 • F: 0.01 • T: 0.32 • C: 0.31
AUG 14, 2012	09:45	107864	COMBINED CHLORINE	0.25 mg/L	F: 0.02 T: 0.17 C:0.15	HYD AT 371 SALISBURY LANE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • AUG 14, 2012 / 10:15 • F: 0.03 • T:0.50 • C: 0.47
*AUG 14, 2012	13:20	107873	COMBINED CHLORINE	0.25 mg/L	F: 0.00 T: 0.09 C: 0.09	HYD AT NW CORNER OF CARBERRY ST & PINDER AVE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • AUG 14, 2012 / 15:20 • F: 0.02 • T: 0.57 • C: 0.55
AUG 15, 2012	10:15	107891	COMBINED CHLORINE	0.25 mg/L	F: 0.02 T: 0.13 C: 0.11	HYD AT 367 SALISBURY LANE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • AUG 15, 2012 / 11:15 • F: 0.03 • T: 0.64 • C: 0.61

***ALL DATES WITH ASTERISK (*) INVOLVED SEVERAL OTHER ADVERSE RESIDUALS THAT WERE RECORDED/REPORTED DURING THE PERIODS OF FLUSHING TO RESOLVE. ALL OF THESE RECORDS ARE PUBLIC INFORMATION AND AVAILABLE FOR VIEWING UPON REQUEST AT 1275 MAPLE HILL COURT**

2012 ANNUAL WATER QUALITY SUMMARY REPORT

DATE	TIME	AWQI	PARAMETER	STANDARD	RESULT (mg/L)	LOCATION	RESOLUTION
AUG 16, 2012	08:05	107921	COMBINED CHLORINE	0.25 mg/L	F: 0.03 T: 0.20 C: 0.17	HYD AT 620 HAINES RD	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • AUG 16 2012 / 09:00 • F: 0.03 • T: 0.32 • C: 0.29
AUGUST 16, 2012	08:45	107925	COMBINED CHLORINE	0.25mg/L	F: 0.04 T: 0.17 C: 0.13	HYD- 27 MAIN ST NORTH	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • AUGUST 16, 2012/09:05 • F: 0.04 • T: 0.79 • C: 0.75
AUGUST 16, 2012	13:00	107937	COMBINED CHLORINE	0.25mg/L	F: 0.02 T: 0.20 C: 0.18	HYD- OPPOSITE 540 BRISTOL RD	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • AUGUST 16, 2012/14:00 • F: 0.02 • T: 0.51 • C: 0.49
AUGUST 17, 2012	15:10	107984	COMBINED CHLORINE	0.25mg/L	F: 0.03 T: 0.03 C: 0.00	SS- KIRBY PUMPING STATION	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • AUGUST 17, 2012/16:00 • F: 0.04 • T: 1.44 • C: 1.40
AUGUST 20, 2012	08:15	108009	COMBINED CHLORINE	0.25mg/L	F: 0.02 T: 0.21 C: 0.19	HYD- 620 HAINES RD	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • AUGUST 20, 2012/08:45 • F: 0.01 • T: 0.34 • C: 0.33
AUGUST 20, 2012	10:40	108010	COMBINED CHLORINE	0.25mg/L	F: 0.01 T: 0.12 C: 0.11	HYD- 459 CHESTER AVE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • AUGUST 20, 2012/11:15 • F: 0.02 • T: 0.45 • C: 0.43

***ALL DATES WITH ASTERISK (*) INVOLVED SEVERAL OTHER ADVERSE RESIDUALS THAT WERE RECORDED/REPORTED DURING THE PERIODS OF FLUSHING TO RESOLVE. ALL OF THESE RECORDS ARE PUBLIC INFORMATION AND AVAILABLE FOR VIEWING UPON REQUEST AT 1275 MAPLE HILL COURT.**

F=FREE CHLORINE; T=TOTAL CHLORINE; C=COMBINED CHLORINE (AS CHLORAMINES); HYD=FIRE HYDRANT

2012 ANNUAL WATER QUALITY SUMMARY REPORT

DATE	TIME	AWQI	PARAMETER	STANDARD	RESULT (mg/L)	LOCATION	RESOLUTION
AUGUST 20, 2012	13:05	108013	COMBINED CHLORINE	0.25mg/L	F: 0.00 T: 0.07 C: 0.07	HYD- 57 GLADMAN AVE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • AUGUST 20, 2012/13:55 • F: 0.01 • T: 0.45 • C: 0.44
AUGUST 21, 2012	09:35	108033	COMBINED CHLORINE	0.25mg/L	F: 0.01 T: 0.21 C: 0.20	HYD-620 HAINES RD	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • AUGUST 21, 2012/10:05 • F: 0.02 • T: 0.43 • C: 0.41
AUGUST 22, 2012	10:00	108073	COMBINED CHLORINE	0.25mg/L	F: 0.02 T: 0.16 C: 0.14	HYD- 367 SALISBURY LN	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • AUGUST 22, 2012/10:30 • F: 0.02 • T: 0.50 • C: 0.48
AUGUST 22, 2012	13:50	108086	COMBINED CHLORINE	0.25mg/L	F:0.02 T: 0.09 C: 0.07	HYD- 200 THOMS CRES	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • AUGUST 22, 2012/ 15:00 • F: 0.01 • T: 0.32 • C: 0.31
AUGUST 23, 2012	09:35	108104	COMBINED CHLORINE	0.25mg/L	F: 0.04 T: 0.17 C: 0.13	HYD- 620 HAINES RD	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • AUGUST 23, 2012/10:05 • F: 0.02 • T: 0.44 • C: 0.42
AUGUST 26, 2012	08:30	108135	COMBINED CHLORINE	0.25mg/L	F: 0.01 T: 0.20 C: 0.19	HYD- OPP 281 OLD MAIN STREET NORTH	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • AUGUST 26, 2012/ 09:30 • F: 0.04 • T: 0.45 • C: 0.41

***ALL DATES WITH ASTERISK (*) INVOLVED SEVERAL OTHER ADVERSE RESIDUALS THAT WERE RECORDED/REPORTED DURING THE PERIODS OF FLUSHING TO RESOLVE. ALL OF THESE RECORDS ARE PUBLIC INFORMATION AND AVAILABLE FOR VIEWING UPON REQUEST AT 1275 MAPLE HILL COURT**

2012 ANNUAL WATER QUALITY SUMMARY REPORT

DATE	TIME	AWQI	PARAMETER	STANDARD	RESULT (mg/L)	LOCATION	RESOLUTION
AUGUST 28, 2012	09:15	108161	COMBINED CHLORINE	0.25mg/L	F: 0.01 T: 0.11 C: 0.10	HYD- 52 LEWIS DRIVE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • AUGUST 28, 2012/09:45 • F: 0.06 • T: 1.11 • C: 1.05
AUGUST 30, 2012	09:35	108226	COMBINED CHLORINE	0.25mg/L	F: 0.02 T: 0.20 C: 0.18	HYD- 619 STEVEN COURT	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • AUGUST 30, 2012/10:10 • F: 0.02 • T: 0.56 • C: 0.54
*AUGUST 30, 2012	11:10	108226	COMBINED CHLORINE	0.25mg/L	F: 0.00 T: 0.10 C: 0.10	HYD- 659 WALPOLE CRES	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • AUGUST 30, 2012/11:40 • F: 0.02 • T: 0.41 • C: 0.39
SEPTEMBER 4, 2012	14:00	108287	COMBINED CHLORINE	0.25mg/L	F: 0.00 T: 0.06 C: 0.06	HYD- 100 ARMITAGE DR	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • SEPTEMBER 4, 2012/15:00 • F: 0.01 • T: 0.28 • C: 0.27
SEPTEMBER 5, 2012	08:22	108292	COMBINED CHLORINE	0.25mg/L	F: 0.04 T: 0.00 C: 0.04	HYD- 324 JOHN BOWSER CRES	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • SEPTEMBER 5, 2012/08:50 • F: 0.04 • T: 0.47 • C: 0.43
SEPTEMBER 5, 2012	08:40	108293	COMBINED CHLORINE	0.25mg/L	F: 0.02 T: 0.04 C: 0.02	HYD- 600 STONEHAVEN AVE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • SEPTEMBER 5, 2012/12:35 • F: 0.02 • T: 0.36 • C: 0.34

***ALL DATES WITH ASTERISK (*) INVOLVED SEVERAL OTHER ADVERSE RESIDUALS THAT WERE RECORDED/REPORTED DURING THE PERIODS OF FLUSHING TO RESOLVE. ALL OF THESE RECORDS ARE PUBLIC INFORMATION AND AVAILABLE FOR VIEWING UPON REQUEST AT 1275 MAPLE HILL COURT.**

F=FREE CHLORINE; T=TOTAL CHLORINE; C=COMBINED CHLORINE (AS CHLORAMINES); HYD=FIRE HYDRANT

2012 ANNUAL WATER QUALITY SUMMARY REPORT

DATE	TIME	AWQI	PARAMETER	STANDARD	RESULT (mg/L)	LOCATION	RESOLUTION
SEPTEMBER 5, 2012	14:55	108313	COMBINED CHLORINE	0.25mg/L	F: 0.04 T: 0.18 C: 0.18	HYD AT DEAD END OF NEWPARK BLVD	<ul style="list-style-type: none"> FLUSHED SYSTEM & RESTORED RESIDUAL SEPTEMBER 5, 2012/16:25 F: 0.00 T: 0.31 C: 0.30
*SEPTEMBER 10, 2012	13:30	108368	COMBINED CHLORINE	0.25mg/L	F: 0.00 T: 0.08 C: 0.08	HYD- 432 SYDOR COURT	<ul style="list-style-type: none"> FLUSHED SYSTEM & RESTORED RESIDUAL SEPTEMBER 10, 2012/14:25 F: 0.01 T: 0.51 C: 0.50
SEPTEMBER 4, 2012	12:19	108342	CLOSTIDUM PERFRINGENS	100mL	2CFU	HYD- 415 ROYWOOD CRES	<ul style="list-style-type: none"> RESAMPLE WAS TAKEN AT ADVERSE LOCATION AND UPSTREAM AND DOWNSTREAM LOCATIONS ON TUESDAY SEPTEMBER 11, 2012. SAMPLES WERE DELIVERED TO CGS LABORATORIES IN LAKEFIELD, WITH RESULTS RECEIVED SEPTEMBER 13, 2012. RESAMPLES WERE NEGATIVE.
SEPTEMBER 17, 2012	14:00	108473	COMBINED CHLORINE	0.25mg/L	F: 0.02 T: 0.10 C: 0.08	HYD-255 BRIMSON DRIVE	<ul style="list-style-type: none"> FLUSHED SYSTEM & RESTORED RESIDUAL SEPTEMBER 17, 2012/14:30 F: 0.02 T: 0.32 C: 0.30
SEPTEMBER 18, 2012	09:30	108485	COMBINED CHLORINE	0.25mg/L	F: 0.01 T: 0.12 C: 0.11	HYD- 216 THOMS CRES	<ul style="list-style-type: none"> FLUSHED SYSTEM & RESTORED RESIDUAL SEPTEMBER 18, 2012/10:00 F: 0.01 T: 0.37 C: 0.36
*SEPTEMBER 19, 2012	10:35	108510	COMBINED CHLORINE	0.25mg/L	F: 0.02 T: 0.10 C: 0.08	HYD- DEAD END OF NEWPARK BLVD	<ul style="list-style-type: none"> FLUSHED SYSTEM & RESTORED RESIDUAL SEPTEMBER 19, 2012/14:30 F: 0.01 T: 0.39 C: 0.38

****ALL DATES WITH ASTERISK (*) INVOLVED SEVERAL OTHER ADVERSE RESIDUALS THAT WERE RECORDED/REPORTED DURING THE PERIODS OF FLUSHING TO RESOLVE. ALL OF THESE RECORDS ARE PUBLIC INFORMATION AND AVAILABLE FOR VIEWING UPON REQUEST AT 1275 MAPLE HILL COURT***

2012 ANNUAL WATER QUALITY SUMMARY REPORT

DATE	TIME	AWQI	PARAMETER	STANDARD	RESULT (mg/L)	LOCATION	RESOLUTION
*SEPTEMBER 20, 2012	13:10	108541	COMBINED CHLORINE	0.25mg/L	F: 0.02 T: 0.20 C: 0.18	HYD- 227 CURREY CRES	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • SEPTEMBER 20, 2012/16:40 • F: 0.03 • T: 0.94 • C: 0.91
*SEPTEMBER 21, 2012	09:10	108553	COMBINED CHLORINE	0.25mg/L	F:0.04 T:0.24 C: 0.20	HYD- 493 WOODSPRING AVE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • SEPTEMBER 21, 2012/11:00 • F: 0.03 • T: 0.48 • C: 0.45
SEPTEMBER 21, 2012	13:55	108559	COMBINED CHLORINE	0.25mg/L	F: 0.02 T: 0.08 C: 0.06	HYD- 227 CURREY CRES	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • SEPTEMBER 21, 2012/14:50 • F: 0.03 • T: 0.52 • C: 0.49
SEPTEMBER 24, 2012	14:45	108584	COMBINED CHLORINE	0.25mg/L	F: 0.01 T: 0.02 C: 0.01	HYD- 869 SURIN COURT	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • SEPTEMBER 24, 2012/15:15 • F: 0.01 • T: 0.79 • C: 0.78
SEPTEMBER 25, 2012	13:30	108605	COMBINED CHLORINE	0.25mg/L	F: 0.01 T: 0.11 C: 0.10	HYD- 183 HODGSON DRIVE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • SEPTEMBER 25, 2012/14:00 • F: 0.02 • T: 0.51 • C: 0.49
*SEPTEMBER 26, 2012	10:40	108614	COMBINED CHLORINE	0.25mg/L	F: 0.03 T: 0.12 C: 0.09	HYD- 490 CODY CRES	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • SEPTEMBER 26, 2012/11:10 • F: 0.05 • T: 0.60 • C: 0.55

***ALL DATES WITH ASTERISK (*) INVOLVED SEVERAL OTHER ADVERSE RESIDUALS THAT WERE RECORDED/REPORTED DURING THE PERIODS OF FLUSHING TO RESOLVE. ALL OF THESE RECORDS ARE PUBLIC INFORMATION AND AVAILABLE FOR VIEWING UPON REQUEST AT 1275 MAPLE HILL COURT.**

F=FREE CHLORINE; T=TOTAL CHLORINE; C=COMBINED CHLORINE (AS CHLORAMINES); HYD=FIRE HYDRANT

2012 ANNUAL WATER QUALITY SUMMARY REPORT

DATE	TIME	AWQI	PARAMETER	STANDARD	RESULT (mg/L)	LOCATION	RESOLUTION
SEPTEMBER 26, 2012	12:40	108616	COMBINED CHLORINE	0.25mg/L	F: 0.00 T: 0.04 C: 0.04	HYD # 203E6 ON NEWPARK BLVD	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • SEPTEMBER 26, 2012/13:15 • F: 0.02 • T:0.34 • C: 0.32
SEPTEMBER 27, 2012	11:30	108636	COMBINED CHLORINE	0.25mg/L	F: 0.03 T: 0.15 C: 0.12	FIRST HYDRANT EAST OF SANDFORD ON MULOCK DRIVE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • SEPTEMBER 27, 2012/12:30 • F: 0.02 • T: 0.58 • C: 0.56
SEPTEMBER 27, 2012	13:15	108637	COMBINED CHLORINE	0.25mg/L	F: 0.03 T: 0.12 C: 0.09	HYD- 606 OSLER COURT	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • SEPTEMBER 27, 2012/15:10 • F: 0.01 • T: 0.67 • C: 0.66
SEPTEMBER 27, 2012	14:45	108641	COMBINED CHLORINE	0.25mg/L	F: 0.00 T: 0.21 C: 0.21	HYD- 619 STEVENS COURT	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • SEPTEMBER 27, 2012/15:15 • F: 0.05 • T: 1.30 • C: 1.25
OCTOBER 1, 2012	10:25	108693	COMBINED CHLORINE	0.25mg/L	F: 0.01 T: 0.07 C: 0.06	HYD- 192 WAINSCOT AVE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • OCTOBER 1, 2012/11:05 • F: 0.05 • T: 0.47 • C: 0.42
*OCTOBER 2, 2012	14:50	108736	COMBINED CHLORINE	0.25mg/L	F: 0.00 T: 0.01 C: 0.01	HYD- 864 FILIBERTO PLACE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • OCTOBER 2, 2012/16:00 • F: 0.03 • T: 0.39 • C: 0.36

***ALL DATES WITH ASTERISK (*) INVOLVED SEVERAL OTHER ADVERSE RESIDUALS THAT WERE RECORDED/REPORTED DURING THE PERIODS OF FLUSHING TO RESOLVE. ALL OF THESE RECORDS ARE PUBLIC INFORMATION AND AVAILABLE FOR VIEWING UPON REQUEST AT 1275 MAPLE HILL COURT**

2012 ANNUAL WATER QUALITY SUMMARY REPORT

DATE	TIME	AWQI	PARAMETER	STANDARD	RESULT (mg/L)	LOCATION	RESOLUTION
OCTOBER 5, 2012	13:15	108793	COMBINED CHLORINE	0.25mg/L	F: 0.02 T: 0.19 C: 0.17	HYD- 194 WAINSCOT AVE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • OCTOBER 5, 2012/13:45 • F: 0.03 • T: 0.36 • C: 0.33
*OCTOBER 9, 2012	08:40	108808	COMBINED CHLORINE	0.25mg/L	F: 0.03 T: 0.15 C: 0.12	SECOND HYDRANT WEST OF YONGE ST ON ASPENWOOD DRIVE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • OCTOBER 9, 2012/13:40 • F: 0.01 • T: 0.26 • C: 0.25
OCTOBER 15, 2012	12:50	108933	COMBINED CHLORINE	0.25mg/L	F: 0.02 T: 0.06 C: 0.04	HYD- 432 SYDOR COURT	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • OCTOBER 15, 2012/13:25 • F: 0.01 • T: 0.44 • C: 0.43
OCTOBER 17, 2012	13:45	108960	COMBINED CHLORINE	0.25mg/L	F: 0.03 T: 0.13 C: 0.10	HYD AT THE CORNER OF STEWART ST & ALLEN AVE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • OCTOBER 17, 2012/15:25 • F: 0.05 • T: 0.55 • C: 0.50
OCTOBER 26, 2012	09:55	109122	COMBINED CHLORINE	0.25mg/L	F: 0.02 T: 0.21 C: 0.19	HYD- 81 BULMER CRES	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • OCTOBER 26, 2012/10:25 • F: 0.02 • T: 0.32 • C: 0.30
OCTOBER 26, 2012	10:35	109123	COMBINED CHLORINE	0.25mg/L	F: 0.02 T: 0.04 C: 0.02	HYD- 239 HODGSON DRIVE	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • OCTOBER 26, 2012/15:00 • F: 0.01 • T: 0.28 • C: 0.27

***ALL DATES WITH ASTERISK (*) INVOLVED SEVERAL OTHER ADVERSE RESIDUALS THAT WERE RECORDED/REPORTED DURING THE PERIODS OF FLUSHING TO RESOLVE. ALL OF THESE RECORDS ARE PUBLIC INFORMATION AND AVAILABLE FOR VIEWING UPON REQUEST AT 1275 MAPLE HILL COURT.**

F=FREE CHLORINE; T=TOTAL CHLORINE; C=COMBINED CHLORINE (AS CHLORAMINES); HYD=FIRE HYDRANT

2012 ANNUAL WATER QUALITY SUMMARY REPORT

DATE	TIME	AWQI	PARAMETER	STANDARD	RESULT (mg/L)	LOCATION	RESOLUTION
OCTOBER 26, 2012	11:30	109125	COMBINED CHLORINE	0.25mg/L	F: 0.02 T: 0.14 C: 0.12	HYD- 61 EVES COURT	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • OCTOBER 26, 2012/11:50 • F: 0.03 • T: 0.41 • C: 0.38
*OCTOBER 28, 2012	22:00	109146	COMBINED CHLORINE	0.25mg/L	F: 0.00 T: 0.06 C: 0.06	HYD- 286 ROYWOOD CRES	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • OCTOBER 29, 2012/02:00 • F: 0.04 • T: 0.31 • C:0.27
NOVEMBER 1, 2012	09:50	109190	COMBINED CHLORINE	0.25mg/L	F: 0.01 T: 0.20 C: 0.19	HYD- 355 CHERYL MEWS BLVD	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • NOVEMBER 1, 2012/10:25 • F: 0.04 • T: 0.61 • C: 0.57
NOVEMBER 8, 2012	10:20	109254	COMBINED CHLORINE	0.25mg/L	F: 0.03 T: 0.09 C: 0.06	HYD- 1128 QUAKER TRAIL	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • NOVEMBER 8, 2012/10:52 • F: 1.01 • T: 1.48 • C: 0.47
DECEMBER 27, 2012	11:20	109637	COMBINED CHLORINE	0.25mg/L	F: 0.03 T: 0.18 C: 0.15	SS19- FORD WILSON BLVD	<ul style="list-style-type: none"> • FLUSHED SYSTEM & RESTORED RESIDUAL • DECEMBER 27, 2012/12:20 • F: 0.03 • T: 0.77 • C: 0.74

****ALL DATES WITH ASTERISK (*) INVOLVED SEVERAL OTHER ADVERSE RESIDUALS THAT WERE RECORDED/REPORTED DURING THE PERIODS OF FLUSHING TO RESOLVE. ALL OF THESE RECORDS ARE PUBLIC INFORMATION AND AVAILABLE FOR VIEWING UPON REQUEST AT 1275 MAPLE HILL COURT***

NEWMARKET PRODUCTION FLOW DATA

For the period of January 1, 2012 – December 31, 2012

TABLE 7: 2012 PRODUCTION FLOWS

Town of Newmarket
Monthly Water Flows 2012



Newmarket
Production Data 2012

Production Flows	P1		P2		P3		P4		P5		P6		Year to Date
	January	February	March	April	May	June	July	August	September	October	November	December	
No. 1 Well m³	23,921	21,129	10,995	10,400	15,504	6,464	2,927	21,232	21,519	19,287	35,739	36,524	225,640
No. 2 Well m³	1	1	19,195	16,853	12,274	20,773	25,640	56,894	48,893	47,477	87,606	90,644	426,247
No. 13 Well m³	30,456	27,935	54,362	26,548	44,099	26,753	33,659	68,150	61,963	64,652	99,844	106,681	645,103
No. 14 Well m³	7	0	0	133	0	0	0	0	0	0	10	0	150
No. 15 Well m³	64,087	57,654	62,482	59,441	71,924	56,002	44,316	29,929	33,600	34,986	58,153	62,029	634,601
No. 16 Well m³	29,813	25,031	41,447	21,670	16,894	25,322	537	0	0	21,611	94,749	80,550	357,623
Queensville Wells	384,846	355,432	378,123	358,751	436,900	381,303	491,289	472,954	387,696	306,854	69,457	74,070	4,097,673
AU-NM Yonge WMC (Interface)	109,771	126,823	99,661	89,337	130,262	229,268	206,032	119,690	94,506	100,846	121,949	115,177	1,543,323
AU-NM Ballymore WMC	33,828	38,020	30,464	50,400	71,256	90,048	121,736	20,520	16,056	12,400	1,168	1,209	487,104
AU-NM Bathurst WMC (West)	60,443	54,353	69,902	90,147	103,378	126,957	148,899	109,636	107,824	109,292	93,214	106,535	1,180,581
AU-NM Leslie WMC (East) (New in 2012)								12,734	68,461	70,424	89,000	93,997	334,616
Sharon WMC #1	10,639	11,037	9,746	11,967	14,585	15,323	13,824	12,746	11,428	6,427	8,600	7,543	133,864
North Sharon WMC	10,464	10,912	9,720	10,680	14,240	15,264	19,736	13,312	11,384	6,400	8,624	10,816	141,552
Colonel Waying	10,527	9,763	9,896	10,995	15,976	14,934	19,210	15,655	13,271	10,958	9,663	10,245	151,092
Queensville WMC #2	3,720	3,480	3,720	3,600	3,720	3,600	3,720	3,720	3,600	3,720	3,600	3,720	43,920
Herald Road WMC #3	387	358	481	738	1,178	1,640	1,769	1,656	1,348	1,085	459	411	11,509
Sub-Total Water Consumption	701,435	670,829	733,068	685,698	852,791	912,128	1,016,776	864,650	799,487	759,239	719,942	734,680	9,450,723
NM-EG Yonge & Bristol WMC	5,038	5,358	5,250	4,526	5,783	7,621	10,678	9,213	8,721	5,829	5,530	5,822	79,369
NM-EG Woodspring WMC	45,027	41,646	45,563	40,854	46,992	68,650	80,795	85,506	93,610	89,770	66,723	60,834	765,969
NM-EG Aspenwood WMC	-39	56	-38	-38	-45	-44	-49	-49	-39	-63	-55	-37	-441
Total Water Consumption m³	651,409	623,768	682,293	640,355	800,061	835,901	925,352	769,980	697,195	663,704	647,744	668,062	8,605,825
Maximum Daily Flow m³	26,277	24,555	26,314	24,351	34,766	35,794	35,951	32,303	28,579	27,550	26,559	26,047	35,951
Maximum Date	14-Jan	21-Feb	21-Mar	04-Apr	29-May	19-Jun	06-Jul	08-Aug	02-Sep	01-Oct	07-Nov	14-Dec	
Minimum Daily Flow m³	13,612	19,280	18,518	17,167	18,919	21,113	22,549	20,926	14,994	17,499	17,222	16,851	13,612
Minimum Date	10-Jan	28-Feb	11-Mar	03-Apr	09-May	12-Jun	27-Jul	05-Aug	17-Sep	06-Oct	13-Nov	03-Dec	
Average Daily Flow m³	21,013	21,509	22,009	21,345	25,808	27,863	29,850	24,838	23,240	21,410	21,591	21,550	23,502
Period 1 Adjustments (Reported in P2)	773	2,772											3,545
Period 1 & 2 Adjustments (Reported in P3)	(386)	(358)	(701)	(643)									(2,088)
Period 3, 4 Adjustments (Reported in P4)					(1,179)	(1,640)							(2,819)
Period 5 Adjustment (Reported in P5)										(1,081)			(1,081)
Period 5 Adjustment (Reported in P6)										540			540
Period 6 Adjustment (Reported in P6)											(5,246)		(5,246)

Town Flow Calculation

Newmarket Flow = Well #1 + Well #2 + Well #9 + Well #11 + Well #13 + Well #14 + Well #15 + Well #16 + Queensville Wells + AU-NM Yonge WMC (Interface)
 + AU-NM Ballymore WMC + AU-NM Bathurst (West) + AU-NM Leslie WMC - Sharon WMC #1 - North Sharon WMC - Colonel Waying
 - Queensville WMC #2 - Herald Road WMC #3- NM-EG Yonge & Bristol WMC - NM-EG Woodspring WMC - NM-EG Aspenwood WMC

WMC = Water Meter Chamber

NEWMARKET PRODUCTION FLOW DATA

For the period of January 1, 2012 – December 31, 2012

Town of Newmarket - NM-EG Yonge & Bristol WMC

Flow To East Gwillimbury													
Production Data 2012	P1		P2		P3		P4		P5		P6		Year to Date
	January	February	March	April	May	June	July	August	September	October	November	December	
NM-EG Yonge & Bristol WMC m ³	5,038	5,358	5,250	4,526	5,783	7,621	10,678	9,213	8,721	5,829	5,530	5,822	79,369
Maximum Daily Flow m ³	347	318	255	303	428	617	629	604	1,229	420	270	379	1,229
Maximum Date	03-Jan	24-Feb	11-Mar	20-Apr	11-May	29-Jun	20-Jul	26-Aug	12-Sep	15-Oct	26-Nov	19-Dec	
Minimum Daily Flow m ³	116	110	116	102	110	123	245	237	172	125	140	77	77
Minimum Date	17-Jan	29-Feb	29-Mar	26-Apr	03-May	04-Jun	25-Jul	13-Aug	17-Sep	30-Oct	15-Nov	25-Dec	
Average Daily Flow m ³	163	185	169	151	187	254	344	297	291	188	184	188	217

Town of Newmarket - NM-EG Woodspring WMC

Flow To East Gwillimbury													
Production Data 2012	P1		P2		P3		P4		P5		P6		Year to Date
	January	February	March	April	May	June	July	August	September	October	November	December	
NM-EG Woodspring WMC m ³	45,027	41,646	45,563	40,854	46,992	68,650	80,795	85,506	93,610	89,770	66,723	60,834	765,969
Maximum Daily Flow m ³	1,880	2,069	2,927	2,182	2,115	3,294	3,927	3,966	4,821	4,213	3,245	2,280	4,821
Maximum Date	26-Jan	29-Feb	28-Mar	21-Apr	31-May	19-Jun	16-Jul	23-Aug	10-Sep	01-Oct	08-Nov	20-Dec	
Minimum Daily Flow m ³	1,379	1,369	448	409	1,107	1,524	1,950	2,056	1,982	1,887	1,883	1,854	409
Minimum Date	01-Jan	20-Feb	30-Mar	03-Apr	08-May	11-Jun	11-Jul	11-Aug	18-Sep	12-Oct	23-Nov	25-Dec	
Average Daily Flow m ³	1,452	1,436	1,470	1,362	1,516	2,288	2,606	2,758	3,120	2,896	2,224	1,962	2,091

Town of Newmarket - NM-EG Aspenwood WMC

Flow To East Gwillimbury													
Production Data 2012	P1		P2		P3		P4		P5		P6		Year to Date
	January	February	March	April	May	June	July	August	September	October	November	December	
NM-EG Aspenwood WMC m ³	(39)	56	(38)	(38)	(45)	(44)	(49)	(49)	(39)	(63)	(55)	(37)	-441
Maximum Daily Flow m ³	(1)	90	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(2)	(1)	(1)	90
Maximum Date	29-Jan	22-Feb	05-Mar	10-Apr	19-May	10-Jun	20-Jul	27-Aug	04-Sep	29-Oct	30-Nov	31-Dec	
Minimum Daily Flow m ³	(2)	(1)	(1)	(1)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	-2
Minimum Date	10-Jan	18-Feb	22-Mar	19-Apr	30-May	18-Jun	30-Jul	08-Aug	28-Sep	03-Oct	16-Nov	17-Dec	
Average Daily Flow m ³	(1)	2	(1)	(1)	(1)	(1)	(2)	(2)	(1)	(2)	(2)	(1)	(1)

WMC = Water Meter Chamber

KEEPING NEWMARKET'S DRINKING WATER SAFE

As a part of the Walkerton Inquiry, Justice Dennis O'Connor endorsed a "multi-barrier approach" to ensure drinking water safety. This multi-faceted system is a collection of "procedures, processes, and tools that collectively prevent or reduce the contamination of drinking water from source to consumer in order to reduce the risks to public health."

(Source: Ontario Ministry of the Environment, 2007, *Implementing Quality Management: A Guide for Ontario's Drinking Water Systems*)



Multi-Barrier Approach to Drinking Water Safety

Courtesy of Conservation Ontario

The multiple barriers include:

- **Source Protection** to keep the raw water as clean as possible in order to lower the risks that hazards are present
- **Treatment** to remove and/or neutralize hazards
- **Monitoring Program** to detect and act on system problems that could impair drinking water safety and to verify the performance of the system components and finished drinking water quality
- Effective **management systems** including automatic control systems, well-developed responses, and operating practices that are the ultimate means for protecting the safety of drinking water systems."

(Source: Ontario MOE, 2007, *Implementing Quality Management: A Guide for Ontario's Drinking Water Systems*)

The Ontario *Safe Drinking Water Act, 2002 (SDWA)* enhances the level of drinking water protection across the province by providing a clear, consistent set of standards and rules to ensure the provision of safe, high-quality drinking water. This Act holds owners of drinking water systems to their responsibilities to protect drinking water consumers: It specifies the requirements for drinking water systems, testing services, and for the certification of operators, as well as setting quality standards and mechanisms for compliance and enforcement. The section of the SDWA that specifically applies to the owners and operating authority of the Newmarket Water Distribution System is "*Part III – General Requirements*". This document outlines the minimum standards that owners/operating authorities must adhere to.

**PART III
GENERAL REQUIREMENTS**

Potable water

10. *Despite any other Act, a requirement that water be “potable” in any Act, regulation, order or other document issued under the authority of any Act or in a municipal by-law shall be deemed to be a requirement to meet, at a minimum, the requirements of the prescribed drinking water quality standards. 2002, c. 32, s. 10.*

Duties of owners and operating authorities

11. (1) *Every owner of a municipal drinking water system or a regulated non-municipal drinking water system and, if an operating authority is responsible for the operation of the system, the operating authority for the system shall ensure the following:*

- 1. That all water provided by the system to the point where the system is connected to a user’s plumbing system meets the requirements of the prescribed drinking water quality standards.*
- 2. That, at all times in which it is in service, the drinking water system,
 - i. is operated in accordance with the requirements under this Act,*
 - ii. is maintained in a fit state of repair, and*
 - iii. satisfies the requirements of the standards prescribed for the system or the class of systems to which the system belongs.**
- 3. That the drinking water system is operated by persons having the training or expertise for their operating functions that is required by the regulations and the licence or approval issued or granted for the system under this Act.*
- 4. That all sampling, testing and monitoring requirements under this Act that relate to the drinking water system are complied with.*
- 5. That personnel at the drinking water system are under the supervision of persons having the prescribed qualifications.*
- 6. That the persons who carry out functions in relation to the drinking water system comply with such reporting requirements as may be prescribed or that are required by the conditions in the licence or approval issued or granted for the system under this Act. 2002, c. 32, s. 11 (1).*

Duty of owner to report to public

(2) *If an owner of a municipal drinking water system or regulated non-municipal drinking water system is required by the regulations to report on any matter to the public, the owner shall report in accordance with the regulations. 2002, c. 32, s. 11 (2).*

Out-of-province drinking water testing service

(3) *No owner or operating authority of a municipal drinking water system or regulated non-municipal drinking water system shall obtain a drinking water testing service from a person who is not licensed under Part VII to offer or provide the service unless,*

- (a) the laboratory at which the testing is to be conducted is located outside Ontario and is an eligible laboratory in respect of the particular tests to be conducted;*
- (b) the person agrees in writing to comply with section 18 and any prescribed requirements; and*
- (c) the owner or operating authority provides to the Director appointed for the purposes of Part VII,
 - (i) written notice of the use of the testing service,*
 - (ii) a copy of the accreditation referred to in clause (4) (a), if applicable, and**

(iii) a copy of the agreement referred to in clause (b). 2002, c. 32, s. 11 (3).

Eligible laboratory

(4) For the purposes of this section, a laboratory located outside Ontario is an eligible laboratory in respect of a particular test if the laboratory is on a list maintained by the Director appointed for the purposes of Part VII and,

- (a) the laboratory is accredited for the conduct of the test and, in the Director's opinion, the accreditation is equivalent to the accreditation standard of an accreditation body for drinking water testing under Part VII; or
- (b) in the Director's opinion,
 - (i) it is desirable for the purposes of this Act that the test be available,
 - (ii) there is no laboratory, or there are insufficient laboratories, in the area for the conduct of the test under a licence issued under Part VII, and
 - (iii) the person who is to provide the drinking water testing service will be capable of conducting the test at the laboratory, or causing the test to be conducted there. 2002, c. 32, s. 11 (4).

List of out-of-province laboratories

(5) For the purposes of subsection (4), a laboratory may be added to the list maintained by the Director, and may be retained on the list, only if,

- (a) any fee required under this Act has been paid in respect of the laboratory; and
- (b) the laboratory complies with the prescribed requirements. 2002, c. 32, s. 11 (5).

Director's direction

(6) The Director may issue a direction to one or more owners or operating authorities prohibiting them from obtaining drinking water testing services from a laboratory located outside Ontario if the Director has reason to believe that the laboratory has ceased to be an eligible laboratory or has failed to comply with section 18 or a prescribed requirement. 2002, c. 32, s. 11 (6).

Same

(7) Every person who receives a direction under subsection (6) shall comply with the direction and advise the Director in writing of the alternative laboratory from which the person will obtain drinking water testing services. 2002, c. 32, s. 11 (7).

Revocation of direction

(8) The Director may revoke a direction issued under subsection (6) if he or she is of the opinion that the reasons for issuing the direction no longer exist. 2002, c. 32, s. 11 (8).

Operator's certificate

12. (1) No person shall operate a municipal drinking water system or a regulated non-municipal drinking water system unless the person holds a valid operator's certificate issued in accordance with the regulations. 2002, c. 32, s. 12 (1).

Transitional

(2) For the purposes of subsection (1), a valid operator's licence issued under section 6 of Ontario Regulation 435/93 under the Ontario Water Resources Act shall be deemed to be an operator's certificate until the day the operator's licence expires or is cancelled or suspended. 2002, c. 32, s. 12 (2).

Same

(3) For the purposes of subsection (1), a valid operator's licence issued under section 7 or 8 of Ontario Regulation 435/93 under the Ontario Water Resources Act shall be deemed to be an operator's certificate until the earlier of,

- (a) the day the operator's licence is cancelled or suspended; and

(b) the day that is the second anniversary of the day of filing of a regulation made under this Act governing the application and issue of operator's certificates. 2002, c. 32, s. 12 (3).

Same

(4) If an operator's licence mentioned in subsection (3) expires before the day described in clause (3) (b) and is not renewed, the licence ceases to be deemed to be an operator's certificate on the day it expires. 2002, c. 32, s. 12 (4).

Duty to have accredited operating authority

13. (1) Every owner of a municipal drinking water system shall ensure that an accredited operating authority is in charge of the system at all times on and after the day specified in the regulations for the municipality, the system or the owner of the system. 2002, c. 32, s. 13 (1).

Same

(2) If the Minister makes a regulation requiring an accredited operating authority to be in charge of a non-municipal drinking water system, the owner of the system shall ensure that an accredited operating authority is in charge of the system at all times. 2002, c. 32, s. 13 (2).

Agreement with accredited operating authority

14. (1) If an accredited operating authority is in charge of a drinking water system and it is not the owner of the system, the accredited operating authority and the owner of the system shall enter into an agreement that contains the following:

- 1. A description of the system or the parts of the system for which the operating authority is responsible.*
- 2. A description of the respective responsibilities of the owner and the operating authority to ensure that the operation, maintenance, management and alteration of the system comply with this Act, the regulations, any order under this Act and the conditions in,
 - i. the drinking water works permit and the municipal drinking water licence for the system, in the case of a municipal drinking water system, or*
 - ii. the approval for the system, in the case of a non-municipal drinking water system.**
- 3. A description of the respective responsibilities of the owner and the accredited operating authority in the event a deficiency is determined to exist or an emergency occurs.*
- 4. A description of the respective responsibilities of the owner and the accredited operating authority to ensure that the operational plans for the system are reviewed and revised appropriately and that both parties are informed of all revisions.*
- 5. Any other provisions required by the regulations. 2002, c. 32, s. 14 (1).*

Delegation of duty

(2) If an owner of a drinking water system enters into an agreement with an accredited operating authority, the owner may, in the agreement, delegate a duty imposed on the owner under this Act to the accredited operating authority. 2002, c. 32, s. 14 (2).

Exception

(3) A delegation referred to in subsection (2) shall not relieve the owner of the drinking water system from the duty to comply with section 19 or the duty,

- (a) to ensure that the accredited operating authority carries out its duties under this Act and the agreement in a competent and diligent manner while it is in charge of the system; and*
- (b) upon discovery that the accredited operating authority is failing to act in accordance with clause (a), to take all reasonable steps to ensure that the operation of the system complies with the requirements under this Act. 2002, c. 32, s. 14 (3).*

Agreement to be made public

(4) The contents of every agreement referred to in subsection (1) between an owner of a drinking water system and an accredited operating authority shall be made public by the owner of the system in accordance with the requirements prescribed by the Minister. 2002, c. 32, s. 14 (4).

Directions, operational plans

15. (1) The Director shall, on or before the prescribed date, issue directions governing the preparation and content of operational plans for municipal drinking water systems and may issue such additional directions as the Director considers necessary for the purposes of this section. 2002, c. 32, s. 15 (1).

Same

(2) If the Minister makes a regulation requiring a non-municipal drinking water system or a class of non-municipal drinking water systems to have operational plans, the Director shall, on or before the date prescribed by the Minister, issue directions governing the preparation and content of operational plans for the system or systems. 2002, c. 32, s. 15 (2).

Same

(3) The Director may amend, revoke or replace a direction issued under this section. 2002, c. 32, s. 15 (3).

Content of direction

(4) The direction shall include,

- (a) minimum content requirements for operational plans;*
- (b) rules respecting the retention of copies of versions of operational plans;*
- (c) rules respecting the public disclosure of the contents of operational plans; and*
- (d) such other requirements as the Director considers necessary for the purposes of this Act and the regulations. 2002, c. 32, s. 15 (4).*

Same

(5) A direction issued under this section may,

- (a) be general or limited in its application;*
- (b) apply in respect of any class of drinking water systems;*
- (c) require the preparation of operational plans for a treatment system, a distribution system or any part of either or both of them. 2002, c. 32, s. 15 (5).*

Publication

(6) A direction, amendment to a direction or revocation of a direction takes effect when a notice of the direction, amendment or revocation, as the case may be, is given in the Registry. 2002, c. 32, s. 15 (6).

Legislation Act, 2006, Part III

(7) Part III (Regulations) of the Legislation Act, 2006 does not apply to a direction issued under this section. 2002, c. 32, s. 15 (7); 2006, c. 21, Sched. F, s. 132 (1).

Operational plans

16. (1) If operational plans are required for a drinking water system under this Act, every owner and accredited operational authority of the system shall,

- (a) ensure that the plans comply with such directions issued under section 15 that apply in respect of the system; and*
- (b) make public the contents of the operating plans in accordance with the Director's directions. 2002, c. 32, s. 16 (1).*

Submission of plans, municipal drinking water system

(2) Every owner of a municipal drinking water system shall provide a copy of all operational plans for the system to the Director on or before the day prescribed by the regulations for the municipality, the system or the owner of the system. 2002, c. 32, s. 16 (2).

Review of plans

(3) The Director shall review the operational plans for the municipal drinking water system and shall issue a notice,

(a) accepting the plans if the Director is satisfied that the plans satisfy the directions; or

(b) rejecting the plans for the reasons set out in the notice, if the Director is not satisfied that the plans satisfy the directions. 2002, c. 32, s. 16 (3).

Resubmission of plans

(4) The owner of a municipal drinking water system whose operational plans are rejected by the Director shall revise and resubmit the revised plans to the Director in accordance with the directions specified in the notice. 2002, c. 32, s. 16 (4).

Ownership of operational plans

17. (1) All operational plans for a drinking water system remain the property of the owner of the system, irrespective of who prepares or revises the plans. 2002, c. 32, s. 17 (1).

Retention of plans

(2) Every accredited operating authority of a drinking water system for which operational plans are required under this Act shall retain copies of the operational plans for the system in accordance with the Director's directions under section 15. 2002, c. 32, s. 17 (2).

Same

(3) Upon termination of an agreement between the owner and the accredited operating authority of a system, the accredited operating authority shall ensure that the owner has copies of the most recently prepared and revised operational plans for the system. 2002, c. 32, s. 17 (3).

Duty to report adverse test result

18. (1) Each of the following persons shall report every prescribed adverse result of a drinking water test conducted on any waters from a municipal drinking water system or a regulated non-municipal drinking water system to the Ministry and the medical officer of health immediately after the adverse result is obtained:

1. The operating authority responsible for the system or, if there is no operating authority responsible for the system, the owner of the system.

2. The person operating the laboratory at which the adverse result was obtained. 2002, c. 32, s. 18 (1); 2007, c. 10, Sched. D, s. 3 (6).

Same

(2) A report under subsection (1) shall be made in accordance with the regulations. 2002, c. 32, s. 18 (2).

Duty to report to the owner

(3) If an operating authority is required to report an adverse test result under subsection (1), the operating authority shall also immediately report the adverse test result to the owner of the system for which the operating authority is responsible. 2007, c. 10, Sched. D, s. 3 (7).

Duty of laboratory to report

(4) Every person operating a laboratory who is required to report an adverse test result under subsection (1) shall also notify the operating authority responsible for the system or, if there is no operating authority responsible for the system, the owner of the system, of every adverse test result relating to the system, immediately after the adverse result is obtained. 2007, c. 10, Sched. D, s. 3 (7).

Duty to report adverse test result

18.1 (1) The person operating the laboratory at which an adverse result was obtained shall report every prescribed adverse result of a drinking water test conducted on any waters from a small drinking water system within the meaning of the Health Protection and Promotion Act to the Ministry of Health and Long-Term Care and the medical officer of health immediately after the adverse result is obtained. 2007, c. 10, Sched. D, s. 3 (8).

Same

(2) A report under subsection (1) shall be made in accordance with the regulations. 2007, c. 10, Sched. D, s. 3 (8).

Duty of laboratory to report

(3) Every person operating a laboratory who is required to report an adverse test result under subsection (1) shall also notify the operator responsible for the system or, if there is no operator responsible for the system, the owner of the system, of every adverse test result relating to the system, immediately after the adverse result is obtained. 2007, c. 10, Sched. D, s. 3 (8).

Standard of care, municipal drinking water system

19. (1) Each of the persons listed in subsection (2) shall,

- (a) exercise the level of care, diligence and skill in respect of a municipal drinking water system that a reasonably prudent person would be expected to exercise in a similar situation; and
- (b) act honestly, competently and with integrity, with a view to ensuring the protection and safety of the users of the municipal drinking water system. 2002, c. 32, s. 19 (1).

Same

(2) The following are the persons listed for the purposes of subsection (1):

1. The owner of the municipal drinking water system.
2. If the municipal drinking water system is owned by a corporation other than a municipality, every officer and director of the corporation.
3. If the system is owned by a municipality, every person who, on behalf of the municipality, oversees the accredited operating authority of the system or exercises decision-making authority over the system. 2002, c. 32, s. 19 (2).

Offence

(3) Every person under a duty described in subsection (1) who fails to carry out that duty is guilty of an offence. 2002, c. 32, s. 19 (3).

Same

(4) A person may be convicted of an offence under this section in respect of a municipal drinking water system whether or not the owner of the system is prosecuted or convicted. 2002, c. 32, s. 19 (4).

Reliance on experts

(5) A person shall not be considered to have failed to carry out a duty described in subsection (1) in any circumstance in which the person relies in good faith on a report of an engineer, lawyer, accountant or other person whose professional qualifications lend credibility to the report. 2002, c. 32, s. 19 (5).

Prohibition

20. (1) No person shall cause or permit any thing to enter a drinking water system if it could result in,

- (a) a drinking water health hazard;
- (b) a contravention of a prescribed standard; or
- (c) interference with the normal operation of the system. 2002, c. 32, s. 20 (1).

Exception

[\(2\)](#) Subsection (1) does not apply to prohibit activities that are carried out,

(a) in the course of the proper operation, maintenance, repair or alteration of a drinking water system; or

(b) under a statutory authority or for the purposes of complying with a statutory requirement. 2002, c. 32, s. 20 (2).

Dilution no defence

[\(3\)](#) For the purposes of prosecuting the offence of contravening subsection (1), it is not necessary to prove that the thing, if it was diluted when or after it entered the system, continued to result in or could have resulted in a drinking water health hazard. 2002, c. 32, s. 20 (3).

Safe Drinking Water Act, 2002 (S.O. 2002, CHAPTER 32), PART III - GENERAL REQUIREMENTS

Consolidation Period: From December 31, 2012 to the e-Laws currency date.

Last amendment: See Table of Public Statute Provisions Repealed Under Section 10.1 of the Legislation Act, 2006 – December 31, 2012.