

**Laurentian Valley Township
Laurentian Valley Water Works
2007 Annual Report**

Description

Laurentian Valley Waterworks is a distribution system that purchases treated water from the City of Pembroke and distributes it to 595 homes and businesses through out 14 kilometers of distribution piping. There are no storage tanks, chlorine or pressure booster stations. Laurentian Valley Water Works received it's **Certificate** as a Water Distribution Plant, Level 1 (WD1) in November of 2000, # **2893**. On July 15, 2005 the system was reclassified as Water Distribution Subsystem Class 1 by the Ministry of Environment. The Drinking Water System Information number for Laurentian Valley Water Works is W260007465. This is the Annual and Summary Report as required by O.Reg 170/03 as amended.

Laurentian Valley Township has a water servicing agreement with the City of Pembroke. The water is purchased from the city and distributed in the Stafford Village area, part of Pembroke Street East and part of Pembroke Street West. The City treats and tests the water at the Pembroke Filtration Plant on Riverside Drive and tests the water in their distribution system. The Municipality tests the water in its distribution system. The City provides an Annual & Summary Report to the Municipality as required by O.Reg 170/03.

This report and the Certificates of Analysis are available to the general public at the front counter of the Municipal Office at 460 Witt Road during office hours. The quarterly and annual reports are also available on the internet at www.laurentianvalleytwsp.on.ca Information on the City Water Works can be accessed at www.pembrokeontario.com

Ownership

Laurentian Valley Water Works is owned by the Corporation of the Township of Laurentian Valley.

Operating Authority

Laurentian Valley Water Works is operated by the Corporation of the Township of Laurentian Valley.

Sampling & Testing

Water sampling was conducted by Claus Trost, Water Quality Analyst, Certificate number 12228 and Mark Zadow, Operator, Certificate number 13145. The water samples were sent to Caduceon Laboratories Inc. in Ottawa for analysis. Caduceon is an ODWS Accredited laboratory. The results of the analysis are faxed or emailed back to the Municipality. The following chart is a summary of those test results.

In 2007 the Municipality paid Caduceon Laboratories \$2,868.10 for water analysis services.

Analysis

For the period of January 1, 2007 - December 31, 2007

Parameter Tested	MAC, IMAC or Standard	# of Samples	# of Adverse Results	Normal Range	Note #
E, Coli	Nil	126	0	Absent	
Heterotrophic Plate Count	500 CFU/ ml	61	0	<2/ml - <190/ ml	
Background Bacteria	200 CFU/100 ml	4	0	< 1/100ml	
Total Coliforms	Nil	126	3	< 2/100ml 48/100 ml	#1 #2
Residual Chlorine	.05 mg/ml	486	0	0.05 - 1.27	
Trihalomethanes	.10 mg/liter	4	0	.08105 mg/liter	4/4 ave
Lead	0.01 mg/l	1	0	0.00033	

Notes

- #1** February 8, 2007 Caduceon phoned, the water sample taken at Brum's Dairy was adverse with 48 Total Coliforms. Three resamples were taken the same day, one in the dairy bar, another at the initial point in the laboratory and the third at Bruham Food Mart. On February 10, 2007 Caduceon phoned, one sample was adverse with 12 Total Coliforms, from the original location. Claus Trost attended the site and met with Barry Brum, Plant Manager. It was determined that when disposing of milk samples, the tap was contaminated, Barry undertook to clean the offending tap with a chlorinated soap. The followup sampling on February 12 and 13 tested clean. A Notice of Resolution was submitted to the Ministry on February 19, 2007.
- #2** On November 1, 2007 Caduceon phoned the Water Works to advise that the sample taken on October 30, 2007 at Brum's Dairy was adverse with 10 total coliform/ 100 millilitres. Three resamples were drawn on November 1, 2007 and analyzed for Total Coliforms. All three samples tested clean and an Issue Resolution was completed on November 5, 2007.

Complaints

There was one complaint in the second quarter of 2007, which was related to the hydrant flushing on May 8, 2007. The issue of cloudy water was quickly resolved and only involved one household.

There was a second complaint in the third quarter of 2007, which was related to the fire flow testing conducted by Lakeshore Hydrant Service. Brum's Dairy reported that they received some dirty water during their clean up. This was unexpected, the testing close to the Dairy had been scheduled for later in the evening when the Dairy was closed. Lakeshore was testing the hydrant flows by Bank Street when the complaint was received.

Staffing & Training

Laurentian Valley Waterworks has 1 Water Quality Analyst, 2 operators certified Water Distribution- Class 1 and three Operators in Training. The Operator in Charge is Morris Schneider.

Two staff members attended a Confined Space Entry Course on January 9, 2007 conducted by Hazmasters Training.

On January 18 three staff attended the Preventing Waterborne Illness course hosted by the City of Pembroke and facilitated by the Walkerton Clean Water Centre.

On February 21, 2007 three works department crew updated their WHIMIS, First Aid and CPR training, facilitated by Roger Martin of Medi-Facts and hosted by the Renfrew County Homebuilders Association.

Five works staff members attended the Ontario Good Roads Municipal Equipment Trade Show in Fergus on June 6th & 7th along with senior staff.

In October, six water works staff attended the Eastern Ontario Water Workers Association Annual Meeting and training sessions in Kingston.

In November the Water Quality Analyst attended the Municipal Drinking Water Licensing Program Work Shop in Napanee.

Construction

The Hamilton Street water main reconstruction was undertaken in the second quarter of 2007. The work was overseen by Mike Trebinski of Jp2g Consultants. Two sets of samples were taken prior to the reconnection, and further sampling was done after the system was connected. This pipe replacement was completed at a cost of \$95,668.38, including the cost of road resurfacing and landscaping.

Maintenance

There were two water main breaks in the first quarter, the first was in front of 515 Hamilton Street on January 4, 2007. It was a clean break of a 6" cast ductile pipe. The water service in the affected area was off from 1:30 to 5:30 PM. The second break was on January 31st, the service connection saddle for 665 Angle Street had to be replaced. The water service was interrupted in this area from 1:15 - 4:30 PM.

Two fire hydrant services started to leak in the first quarter, hydrant #67 on January 29th and hydrant #64 on February 27th. The Works Department took the hydrants apart and replaced some parts but they still leaked and remained out of service at the end of the first quarter. On May 29, 2007 hydrant #67 was repaired. The rubber ring connecting Hydrant #64 to the main was changed on July 4, 2007 and the hydrant was put back in service.

The hydrants were flushed and the hydrant valves exercised between May 7 and May 11.

On April 11 a leaking service connection was repaired at 611 Bruham Avenue. The water service in this area was interrupted for a short period of time while the curb stop was replaced.

There was a water main break on April 19, 2007 in front of 517 Hamilton Street. It was a clean break of a 6" cast ductile pipe. The water service in the affected area was off from 11:00 AM to 3:00 PM.

22 new residential services were turned on in 2007.

Ministry of the Environment

Annette Stirling, the Drinking Water Inspector for the Ministry of the Environment audited Laurentian Valley Water Works on June 27. The Municipality received a copy of the 2007-08 Inspection Report on July 23, 2007 which was circulated to council. The Ministry identified three issues of non-compliance.

1. One of the Operators in Training had his licence expire. The Ministry's position is that "the owner...shall ensure that every operator employed in the subsystem holds a certificate applicable to that sub-system" The Operator has received a new Operator-in-Training License after completing the new courses.
2. In February 2007, three chlorine samples were below 0.05 mg/l at the Home Depot sampling location, these readings were logged without phoning the Ministry of the Environment. The water main was flushed in each instance to restore the chlorine residual as required.

Home Depot has since installed an automatic flushing system as requested by the Works Superintendent since the watermain was extended. This has helped maintain the chlorine residual immensely.
3. Related to the above noted issue, The regulations and the Policy Manual dictate that the Ministry of Environment and the Renfrew County District Health Unit be called when the chlorine residual is below 0.05 mg/l. This was not done on three occasions.

The Operating Procedure #1 , Averse Water Quality Notification and Schedule 16 of O.Reg 170/03 was reviewed with all the Operators on August 17, 2007. The Water Works has supplied monthly copies of the logs as requested by the Ministry since the audit.

Laurentian Valley Water Works has not received an electronic version of the 2007 Audit Report for posting on the Municipal website from the Ministry.

Laurentian Valley Water Works has started drafting the Drinking Water Quality Management System and is planning the Community Lead testing program as required by the Ministry

Summary

In 2007, the water works purchased 57,581,992 gallons of water from the City of Pembroke and distributed it to 595 homes and businesses. This was a sixteen percent increase in water usage over the previous year. Water quality analysis revealed 3 incidents of adverse water quality, all at the Brum's Dairy sampling location. There were no major expenditures for unplanned maintenance in 2007.