



## DRINKING WATER SYSTEM REPORT

**TO:** CAO, Council & Public Works Manager  
**FROM:** Claus Trost, Quality Management System Representative  
**DATE:** January, 2019  
**SUBJECT:** 2018 Annual Report

### Background

Laurentian Valley Water Works manages just over 14 kilometres of water main and branch lines in the Township. Laurentian Valley Water Works received its Certificate #2893 as a Water Distribution System Class 1 in November of 2000. On May 31, 2011 Drinking Water Works Permit 192-201 and License Number 192-201 was issued by the Ministry of Environment for the Laurentian Valley Distribution System. On March 30, 2016 the License & Permit were renewed. The Drinking Water System Information number for Laurentian Valley Water Works is W260007465. This is the 2018 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 reports are also available on the internet at [www.lvtownship.ca](http://www.lvtownship.ca) Information on the City Water Works can be accessed at [www.pembroke.ca](http://www.pembroke.ca)

### 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 and Testing

The weekly water samples were sent to Caduceon Laboratories Inc. in Ottawa for analysis. Caduceon is an ODWS Accredited laboratory. The results of the analysis are emailed to the Municipality. The following chart is a summary of those test results.

### Analysis for the period of January 1, 2018 - December 31, 2018

Parameter Tested	MAC, IMAC or Standard	# of Samples	# of Adverse Results	Normal Range	Note #
E, Coli	Nil	116	0	Absent	
Total Coliforms	Nil	116	0	< 1/100ml	
Heterotrophic Plate Count	500 CFU/ ml	36	0	<2 CFU/ml - 12 CFU/ml	
Residual Chlorine	.05 mg/ml	482	0	0.05 - 1.19 mg/l	
Trihalomethanes	0.10 mg/liter	4	1	.0823 mg/liter	
Haloacetic Acid	0.08	4	0	.0391 mg/l	
alkalinity - distribution		4	0	35 - 38 mg/l	
Lead - distribution	.01 mg/l	4	0	<0.0002 – 0.00019	
pH – distribution & residential		16	0	7.02 - 7.59	

In 2018, the municipality paid Caduceon \$4,128.35 for laboratory services.

## Complaints

There were no customer service calls received in 2018.

## Staffing & Training

Laurentian Valley Waterworks has 1 Water Quality Analyst and 5 operators certified for Water Distribution 1. In 2018, two operators renewed their Licenses.

Two operators attended a course in early March, on Maintaining Chlorine Residuals and Flushing Techniques. In October, the Water Quality Analyst and an operator attended the Eastern Ontario Water Works Conference in Kingston.

### **Construction**

The reconstruction of the Joe Street water mains, sanitary sewers and storm sewer system was started early in the fourth quarter. The first two blocks, from Bruham Avenue to Third Avenue were completed before the early winter arrived. The work has been suspended until next spring.

### **Maintenance**

There were no water main breaks in 2018.

There were 240 locate requests completed in 2017, of which 78 identified water lines to be marked.

In May of 2018, the main water meters from the City were calibrated/verified, there are some maintenance issues left to resolve.

The chlorine meters and the ph meter were verified/calibrated in June.

The Robinson Lane extension was put into service at the beginning of the third quarter, adding one residential customer.

There was one service connection break, at 586 Hamilton Street, on December 24th, the service saddle was replaced on December 27th.

The hydrants were flushed and the valves were exercised in the second and fourth quarters.

In December, one building with water service was destroyed by fire, the service was shut off prior to demolition.

### **Ministry of the Environment**

The MOE Inspection was conducted on September 26, 2018; the Report was received on October 3, 2018, there was one issue of non-compliance found, in regards to the chlorine sampling schedule. The sampling procedures have been amended to note that on the weeks with Holiday Monday's, the operators will do the second set of chlorine samples on the Friday following.

### **Drinking Water Quality Management System**

The External Audit was completed on March 12, 2018, by NSF our Certification Authority. There was one minor corrective action request, in regards to documentation of changes to the Operations Plan. The documentation procedure was amended to correct this deficiency.

## Asset Management and Financial Plan

In 2018 some assets were replaced on Joe Street and the Robinson Lane Extension was added to our system. The current Financial Plan is valid until 2020.

## Accreditation & Licensing

The Water Works continues to be accredited with NSF.

On March 30, 2016 the License & Permit were renewed, for another 5 year term.

## Summary

In 2018, the water works purchased 51,293,761 gallons of water from the City of Pembroke and distributed it to 646 homes and businesses. This was a 0.0334% increase in volume from the last 10 year average. There were no water main breaks and no incidents of adverse water quality in 2018.

Respectfully Submitted  
Township of Laurentian Valley

*“Original Signed”*

Claus Trost  
Quality Management System Representative

### Total and Average Water Use Statistics

	1st quarter	2nd quarter	3rd quarter	4th quarter	Total	% Deviation from Average
2009	11,400,822	13,200,202	14,142,370	12,821,490	51,564,884	0.526
2010	11,422,415	15,108,830	15,838,621	12,040,820	54,410,686	5.729
2011	9,941,822	13,916,683	13,807,640	14,068,538	51,734,683	0.852
2012	10,123,738	13,635,875	16,143,424	12,109,409	52,012,446	1.382
2013	11,012,707	13,002,165	12,844,073	9,267,694	46,126,639	-11.202
2014	8,572,421	10,951,915	13,112,594	13,004,686	45,641,616	-12.384
2015	13,457,180	16,916,645	16,032,685	12,440,670	58,847,180	12.836
2016	11,976,910	14,558,170	15,791,380	12,040,490	54,366,950	5.653
2017	10,709,380	11,996,820	12,318,240	11,742,610	46,767,050	-9.679
2018	12,022,340	13,355,100	14,025,550	12,062,490	51,465,480	0.334
10 year average	10,988,502	13,911,311	14,714,098	12,224,225	51,293,761	