



DRINKING WATER SYSTEM REPORT

TO: CAO, Council & Public Works Manager
FROM: Claus Trost, Quality Management System Representative
DATE: January, 2020
SUBJECT: 2019 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 2019 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 Information on the City Water Works can be accessed at 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, 2019 - December 31, 2019

Parameter Tested	MAC, IMAC or Standard	# of Samples	# of Adverse Results	Normal Range	Note #
E, Coli	Nil	115	0	Absent	
Total Coliforms	Nil	115	0	< 1/100ml	
Heterotrophic Plate Count	500 CFU/ ml	43	0	<2 CFU/ml - 32 CFU/ml	
Residual Chlorine	.05 mg/ml	483	0	0.05 - 1.24 mg/l	
Trihalomethanes	0.10 mg/liter	4	0	.08975 mg/liter	
Haloacetic Acid	0.08	4	0	.0492 mg/l	
alkalinity - distribution		4	0	35 - 36 mg/l	
Lead - distribution	.01 mg/l	2	0	<0.0017 – 0.00070	
pH – distribution		4	0	7.20 - 7.96	

In 2019, the municipality paid Caduceon \$4,011.23 for laboratory services.

Complaints

There was one customer service call received in the first quarter of 2019, the issue/concern has not occurred since. (*loss of water pressure*)

Staffing & Training

Laurentian Valley Waterworks has 1 Water Quality Analyst and 6 operators certified for Water Distribution 1. In 2019, the water quality analyst renewed his License.

In late February the Water Quality Analyst completed the mandatory course for license renewal. In April, three operators completed the mandatory training course and the internal auditor completed the Internal Auditing course.

Construction

The reconstruction of the Joe Street water mains, sanitary sewers and storm sewer system was completed in 2019.

Maintenance

There was one water main break in the first quarter of 2019, on January 2 there was a main break on Joe Street, the water pressure was throttled back from 4:20 PM to 7:30 P.M., while a 4 inch pipe clamp was installed.

There were 2 service connection repairs, one at 527 Glen Street and the other at 508 Roy Street.

On March 21 the air releaser at the Elgin Street Water Meter failed, it is currently capped while we wait for a replacement part.

The Hach chlorine testers and pH meter were calibrated in September.

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

The splash pad was winterized in the fourth quarter, in 2019 it consumed 365,000 gallons.

Hydrant # 4 was replaced and hydrants #48 & #67 were repaired in December.

There were 296 locate requests completed in 2019, of which 100 identified water lines to be marked.

Ministry of the Environment

The Ministry conducted the annual inspection on October 30, 2019; the final report was issued on December 20, 2019, with a Final Inspection Rating of 100%.

Drinking Water Quality Management System

The External Audit was completed on February 27, 2019, by NSF our Certification Authority.

There was one minor corrective action request, in regards to the documentation of Continual Improvement, in the Operations Plan. The documentation procedure was amended to correct this deficiency. There were also 3 Opportunities for Improvement which were also incorporated into the Operations Plan.

In the fourth quarter the Internal Audit Report was completed, there were no corrective action requests, just some administrative errors/typos to correct.



The Management Review was completed on December 12, 2019 and the report submitted to Council early in 2020.

Asset Management and Financial Plan

In 2019 some assets were replaced on Joe Street. 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 a 5 year term, the application for License renewal is scheduled to be completed in November 2020.

Summary

In 2019, 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 8.052% decrease in volume from the last 10 year average. There was one water main break and no incidents of adverse water quality in 2019.

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
2019	11,904,640	12,334,476	12,725,130	10,507,288	47,471,534	-8.052
10 year average	10,988,502	13,911,311	14,714,098	12,224,225	51,293,761	