L'Orignal Drinking Water System

Waterworks # 260037102 System Category – Large Municipal Residential

Annual Water Report

Prepared For: Champlain Township

Reporting Period of January 1st – December 31st 2024

Issued: March 06, 2025

Revision: 1

Operating Authority:



This report has been prepared to satisfy the annual reporting requirements in O.Reg 170/03 Section 11 and Schedule 22

Table of Contents

Report Availability	
Compliance Report Card	1
System Process Description	1
Treatment & Distribution	1
Treatment Chemicals used during the reporting year:	1
Summary of Non-Compliance	2
Adverse Water Quality Incidents	2
Non-Compliance	2
Non-Compliance Identified in a Ministry Inspection:	2
Flows	3
Distribution Water Flows	3
Daily Flows by Month	3
Monthly Total Flow Comparison	3
Regulatory Sample Results Summary	4
Microbiological Testing	4
Operational Testing	4
Schedule 15 Sampling:	4
Organic Parameters	4
Additional Legislated Samples	4
Major Maintenance Summary	5
Distribution Maintenance	5

Report Availability

This system does <u>not</u> serve more than 10,000 residence and the annual reports will be available to residents on the Champlain Township website.

Compliance Report Card

Compliance Event	# of Events
Ministry of Environment Inspections	1 – Inspection completed on December 4, 2024
willistry of Environment hispections	There were no non-compliances identified – 100%
Ministry of Labour Inspections	0
QEMS External Audit	0
AWQl's/BWA	0
Non-Compliance	0
Community Complaints	2
Spills	0
Watermain Breaks	1

System Process Description

Treatment & Distribution

The L'Orignal water distribution system is a stand alone distribution system, receiving treated water from the Hawkesbury Distribution System.

The system consists of the following:

- 6 km transmission line of 300 mm pipe, connecting to the existing distribution system at Lecours and Eliza Streets
- a 1588 m³ standpipe, a booster station with four booster/recirculation pumps, providing 61.5 L/s, for standpipe recirculation, low system pressure boosting and fire flow protection; chlorination facilities, complete with two 17 L/s capacity chemical feed pumps and one 29 L/s chemical feed pump for the standpipe maintenance and fire flow, chemical solution storage tank, chlorine analyzer and chart recorder
- a 100 kW diesel generator, a control chamber for metering and isolation and miscellaneous electrical and instrumentation controls.

Treatment Chemicals used during the reporting year:

Chemical Name	Use	Supplier
Sodium Hypochlorite	Disinfection	Brenntag

Issued: February 24, 2025 Page | 2

Summary of Non-Compliance

Adverse Water Quality Incidents

Date	AWQI#	Location	Problem	Details	Legislation	Corrective Action Taken
There were no adverse water quality incidents reported during the reporting period.						

Non-Compliance

Legislation	requirement(s) system failed to meet	duration of the failure (i.e. date(s))	Corrective Action	Status
	There were no non-com	pliance issues reported	during the reporting period.	

Non-Compliance Identified in a Ministry Inspection:

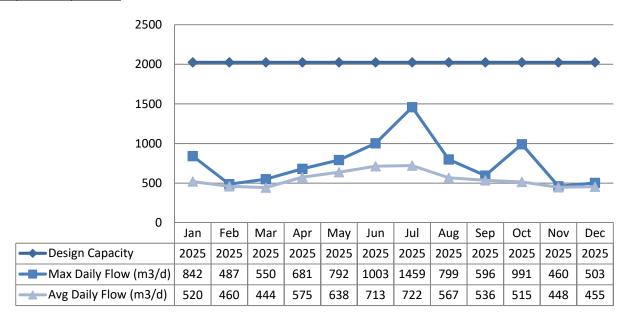
Legislation	Requirement(s) system failed to meet	Details	Corrective Action	Status
	There were no non-con	npliance issues reported	during the reporting period.	

Flows

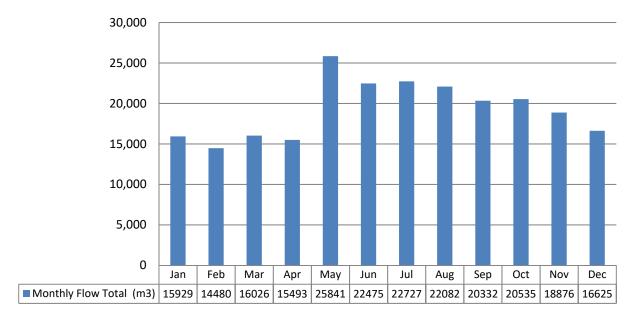
With a 2024 annual average day flow of 549.8m³/d, the L'Orignal Water Distribution System is operating at roughly a quarter or 27% of its design capacity of 2025 m³/day.

Distribution Water Flows

Daily Flows by Month



Monthly Total Flow Comparison



Regulatory Sample Results Summary

Microbiological Testing

	No. of Samples	Range of E.Coli Results		Range of Total Coliform Results		No. of HPC Samples	Range of HPC Results	
	Collected	Min	Max	Min	Max	Collected	Min	Max
Distribution Water	159	0	0	0	0	53	2	2

Operational Testing

	No. of Samples	Range of Results	
	Collected	Minimum	Maximum
Free Chlorine Residual, On-Line (mg/L) - DW	8760	0.36	2.26
Free Chlorine Residual, DW Field (mg/L) Lab Upload - DW	159	0.42	1.52

NOTE: spikes recorded by on-line instrumentation were a result of power flicks, PLC resets and various maintenance/calibration activities. All spikes are reviewed for compliance with O.Reg 170/03

Schedule 15 Sampling:

The Schedule 15 Sampling is required under O.Reg 170/03. This system is under reduced sampling. No plumbing samples were collected.

Distribution System	Number of Sampling	Number of Samples	Range of Results		MAC	Number of	
Distribution system	Points	realiser of Samples	Minimum	Maximum	(mg/L)	Exceedances	
Alkalinity (mg/L)	2	4	26	30	N/A	N/A	
рН	2	4	7.1	7.4	N/A	N/A	
Lead (mg/L)	2	4	N/A	N/A	0.01	N/A	

Organic Parameters

These parameters were tested quarterly as a requirement under O.Reg 170/03.

	Sample Date	Running	BAAC	No. of Exc	ceedances
	(yyyy/mm/dd)	Average	MAC	MAC	1/2 MAC
Distribution Water					
Trihalomethane: Total (ug/L) Annual Average - DW	2024	64	100	No	Yes
Haloacetic Acids: Total (ug/L) Annual Average – DW	2024	43.95	80	No	Yes

MAC = Maximum Allowable Concentration as per O.Reg 169/03

BDL = Below the laboratory detection level

Additional Legislated Samples

There was no additional sampling required.

Major Maintenance Summary

Distribution Maintenance

Date	Location Reference	Details
January 4	Stand Pipe	New Chlorine analyzer installation
January 5	968 Hwy 17	Watermain, curb shut off emergency repairs
January 8	L'Orignal	Watermain, curb shut off and valve boxes repairs
February 13	Stand pipe	Standpipe repairs
February 26	Stand Pipe	Valve ROV3 partially open causing low pressure
March 1	L'Orignal	Connect PSI analyzer connection to dialer
April 11	L'Orignal main street	Completion of road work in L'Orignal Main St.
June 3	L'Orignal Distribution	Extend curb stop at 2 De la Seigneurie St.
June 7	Stand Pipe	Install 2 high lift pump and program
June 13	L'Orignal Distribution	Curbstop repair 862/864 Baie Rd, 16 Peter, 28 Lisgard
July 10	L'Orignal Distribution	4 curb stop repair at 850, 858, 872, 878 King St.
July 15	L'Orignal Distribution	Replace defective curb stop at 896 Front St.
April 30	Longueil St	New Water and Sewage connection for storage park
August 14	Stand Pipe	Completed flow meter adjustment due to standpipe back in service
August 30	Longueil St	Watermain, curb shut off and valve boxes repair 250-252 Longueil St.
September 3	Longueil St	Completed curb stop repair and extention at 250-252 Longueil St
September 10	Bay Rd	Replace defective curb stop on Bay Rd.
October 15	L'Orignal Distribution	Curb stop replacement 833 and 854 Victoria St.
October 21	County rd 4	Replace motorize valve at valve chamber
October 22	County rd 4	New valve installation at valve chamber
October 28	L'Orignal Distribution	Service repair 213 Longueuil on watermain