

L'Original Drinking Water System

Waterworks # 260037102
System Category – Large Municipal Residential

Annual Water Report

Prepared For: Champlain Township

Reporting Period of January 1st – December 31st 2020

Issued: January 22nd, 2021

Revision: 0

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

Annual Water Report	1
Report Availability	1
Compliance Report Card	A
System Process Description	1
Treatment & Distribution	1
Treatment Chemicals used during the reporting year:	2
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
Monthly Flows.....	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 not 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
Ministry of Labour Inspections	0
QEMS External Audit	1
AWQI's/BWA	0
Non-Compliance	1
Community Complaints	3
Spills	0
Watermain Breaks	1

System Process Description

Treatment & Distribution

The L'Original water distribution system is a stand alone distribution system, receiving treated water from the Hawkesbury Water Treatment Plant.

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.

This transmission line and booster station operates under Drinking Water License Number 174-101 & Drinking Water Works Permit Number 174-201.

Treatment Chemicals used during the reporting year:

Chemical Name	Use	Supplier
Sodium Hypochlorite	Disinfection	Brenntag

Summary of Non-ComplianceAdverse 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-compliance issues reported during the reporting period.				

Non-Compliance Identified in a Ministry Inspection:

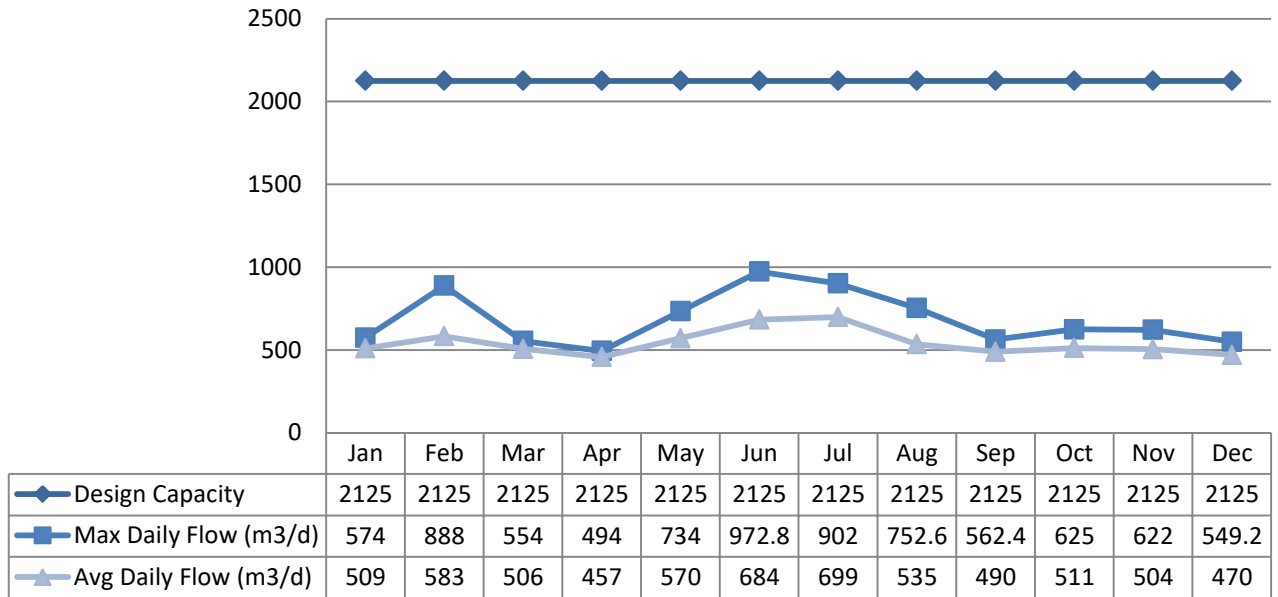
Legislation	Requirement(s) system failed to meet	Details	Corrective Action	Status
DWWP	Subsection 3.3.1 of the DWWP defines that it be recorded on a Form 1 prior to the addition modification or replacement or extension being placed into service.	A Form 1, dated December 13, 2019 was created after the November 8, 2019 installation of a replacement watermain crossing the Bay Rd. bridge.	OCWA was aware and met with the Owner to review the DWWP condition 3.3.1 to ensure all Form 1 requirements are met prior to a watermain addition, modification, replacement or extension being placed into service.	Complete

Flows

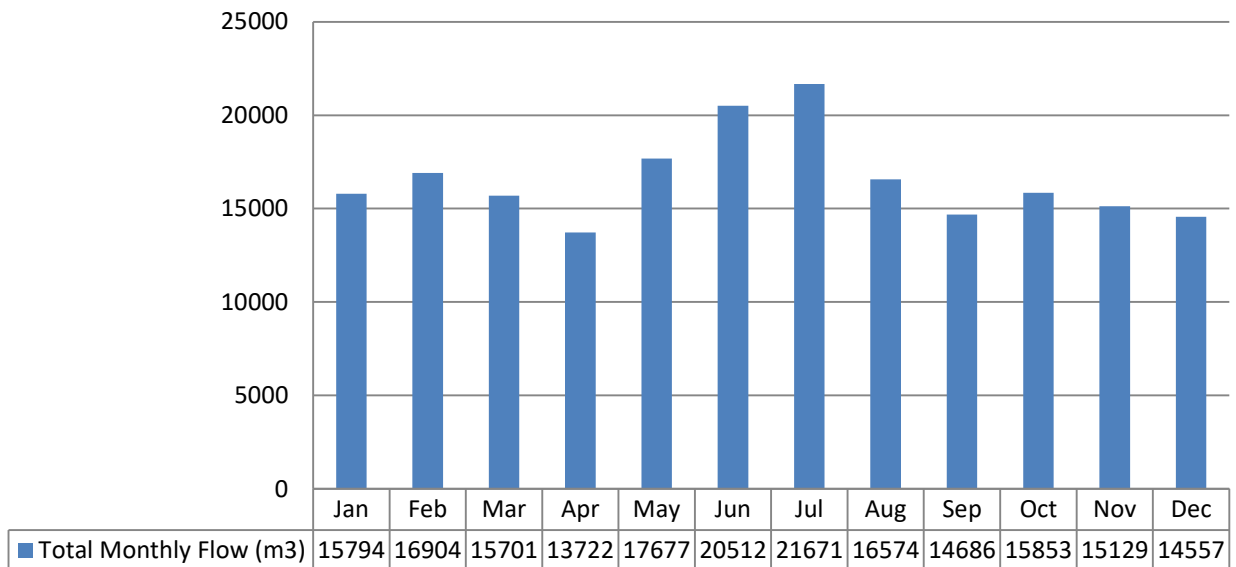
With a 2020 annual average day flow of 543 m³/d, the L'Original Water Distribution System is operating at just slightly over one quarter of its design capacity of 2025 m³/day.

Distribution Water Flows

Daily Flows by Month



Monthly Total Flow Comparison



Regulatory Sample Results Summary

Microbiological Testing

	No. of Samples Collected	Range of E.Coli Results		Range of Total Coliform Results		No. of Samples Collected	Range of HPC Results	
		Min	Max	Min	Max		Min	Max
Distribution Water	156	0	0	0	0	52	<2	56

Operational Testing

	No. of Samples Collected	Range of Results	
		Minimum	Maximum
Free Chlorine Residual, On-Line (mg/L) - DW	8760	0.22	2.00
Free Chlorine Residual, DW Field (mg/L) Lab Upload - DW	156	0.45	1.94

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 Points	Number of Samples	Range of Results		MAC (mg/L)	Number of Exceedances
			Minimum	Maximum		
Alkalinity (mg/L)	2	4	16	32	N/A	N/A
pH	2	4	7.4	7.8	N/A	N/A
Lead (mg/L)	N/A	N/A	N/A	N/A	0.01	N/A

Organic Parameters

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

	Most Recent Sample Date (yyyy/mm/dd)	4Q Running Average	MAC	Number of Exceedances	
				MAC	1/2 MAC
Distribution Water					
Trihalomethane: Total (ug/L) Annual Average - DW	2020/10/05	55.0	100	No	Yes
Haloacetic Acids: Total (ug/L) Annual Average – DW	2020/10/05	60.8	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
08-Jan-20	Stand Pipe	Replace air relief valves on both chlorine pumps and remove/clean/troubleshoot faulty flow sensors.
10-Feb-20	916 Bay Rd.	Repair leaking service saddle with Coal Water Excavation.
19-Mar-20	Stand Pipe	Replaced cracked "T" on chlorination system injection line
May/June-20	WDS	Semi-annual flushing of distribution system fire hydrants.
09-Jun-20	Stand Pipe	Replace cracked 6" section on the stand pipe overflow pipe.
11-Jun-20	WDS	Locate/verify curb stops on King St., Longueuil St., and Bay Rd.
Jul-20	WDS	Hydra Spec onsite to inspect hydrants.
08-Jul-20	900 Bay Rd.	Installation of new valve.
27-Jul-20	Stand Pipe	Landmark onsite to perform stand pipe inspection
28-Jul-20	WPCP	Replace PRV to distribution chlorine analyzer.
Aug-20	WDS	ZT Restorations onsite to paint fire hydrants
24-Sep-20	420 Lecours St.	Install new water service. Original water connection saddle was used to service a different address.
30-Sep-20	1065 King St.	Repair water valve with Coal Water Excavation.
13-Oct-20	Stand Pipe	Replace chlorine injection line
Oct/Nov-20	WDS	Semi-annual flushing and winterization of distribution system fire hydrants.
08-Dec-20	WDS	Hydra Spec onsite to complete fire hydrant repairs.