



# **2024 SUMMARY REPORT FOR STRATHROY-CARADOC WATER DISTRIBUTION SYSTEM**

## 2024 Summary Report for Strathroy-Caradoc Water Distribution System

### Statement of Compliance

This report is a summary of water quality information for the Strathroy-Caradoc Water Distribution System and published in accordance with Schedule 22 of Ontario's Safe Drinking Water Act, Ontario Regulation 170/03 for the reporting period of January 1, 2024 to December 31, 2024. The Strathroy-Caradoc Distribution System is categorized as a Large Municipal Residential Drinking Water System.

The Strathroy-Caradoc Distribution System was operated and maintained in such a manner that the water supplied to the consumers serviced by the system satisfied all the requirements in the Safe Drinking Water Act, the Regulations, the Drinking Water Works Permit Number and the Municipal Drinking Water Licence.

### Description of Water Works

The Strathroy-Caradoc Distribution System is supplied water from the Lake Huron Primary Water Supply System. The Strathroy-Caradoc Distribution System has two connection points to the Lake Huron Primary Water Supply System.

Strathroy is connected at the Lake Huron Primary Water Supply System Monitoring Station #2 located at the Second Street Reservoir. The Strathroy portion of the distribution system consists of the Second Street Pumping Station/Reservoir with re-chlorination and Reservoir (capacity 11,250 m<sup>3</sup>), the Head Street Water Tower (capacity 1,900 m<sup>3</sup>) and over 100 km of watermain serving the local street network.

The following tables provides an overview of storage and pump capacities associated with the Strathroy System

Water Distribution System Storage Capacity

Site	Capacity (m <sup>3</sup> )
Reservoir Cell #1	3,750
Reservoir Cell #2	3,750
Reservoir Cell #3	3,750
Water Tower	1,900
Strathroy-Caradoc Pipeline In-line Emergency Storage	7,500
Total	20,650

Water Pumping Station Capacity

Pump #	Capacity (L/s)
P1	80
P2	139
P3	212
P4	39
P5	39

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The Strathroy portion of the distribution system services the Municipality of Strathroy-Caradoc and Township of Adelaide-Metcalfe.

Mount Brydges is connected at the Lake Huron Primary Water Supply System Monitoring Station #2 located at the intersection of Springwell Road and Falconbridge Drive. The Mount Brydges portion of the distribution system consists of the Oriole Drive Monitoring Station #3 (re-chlorination), the Glendon Drive Reservoir/Pumping Station (capacity 1639m<sup>3</sup>), the Railroad Street Water Tower (capacity 720m<sup>3</sup>) and over 40km of watermain serving the local street network.

The following tables provides an overview of storage and pump capacities associated with the Mount Brydges System

### Water Distribution System Storage Capacity

Site	Capacity (m <sup>3</sup> )
Reservoir Cell #1	1,639
Water Tower	720
Total	2,359

### Water Pumping Station Capacity

Pump#	Capacity (L/s)
P1	41
P2	60
P3	58
P4	58

The Mount Brydges portion of the distribution system services the Mount Brydges area.

Water Quality information pertaining to the Lake Huron Primary Water Supply System may be obtained from the following web site: [www.huronelginwater.ca](http://www.huronelginwater.ca)

### Details of non-compliance issues & how any non-compliance issues were corrected

A Ministry of Environment, Conservation and Parks (MECP) inspection was conducted on September 9, 2024 and the inspection report was received on October 24, 2024. There were no non-compliances identified.

### Details of adverse water quality or potential issues reported as well as how and when any adverse water quality issues were corrected.

N/A

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
N/A					

## 2024 Summary Report for Strathroy-Caradoc Water Distribution System

### Summary of the Quantities and Flow Rates of Water Supplied

The following tables summarizes the quantities and totalized volume of water supplied during 2024 in Strathroy and Mt Brydges.

System Capability Assessment			
Comparison of Flow Rates: Strathroy			
Month	Total Flow m <sup>3</sup>	Average Flow m <sup>3</sup> /day	Max Flow m <sup>3</sup> /day
January	113,714	3,668	4,255
February	107,463	3,706	5,983
March	115,011	3,710	4,696
April	115,529	3,851	6,011
May	130,810	4,220	6,140
June	150,970	5,032	6,190
July	153,134	4,940	6,381
August	154,791	4,993	6,467
September	157,141	5,238	6,443
October	151,086	4,874	7,907
November	148,782	4,959	6,897
December	145,340	4,688	6,221
Average Flow	136,981	4,490	6,133
Maximum Flow	157,141	5,238	7,907
Total Flow	1,643,771	NA	NA
Cubic Meters	Available Storage Capacity	Required Storage Capacity	Remaining Storage Capacity
	13,150	6,220	6,930

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System Capability Assessment			
Comparison of Flow Rates: Mt Brydges			
Month	Total Flow m <sup>3</sup>	Average Flow m <sup>3</sup> /day	Max Flow m <sup>3</sup> /day
January	22,772	735	1,015
February	28,614	987	1,013
March	23,803	768	1,075
April	23,416	781	1,110
May	29,289	945	1,490
June	34,237	1,141	1,663
July	34,520	1,114	1,715
August	32,904	1,061	1,585
September	28,848	962	1,244
October	24,550	792	1,061
November	23,360	779	1,144
December	24,489	790	1,056
Average Flow	27,567	904	1,264
Maximum Flow	34,520	1,141	1,715
Total Flow	330,802	NA	NA
Cubic Meters	Available Storage Capacity	Required Storage Capacity	Remaining Storage Capacity
	2,350	1,715	635

### Comparison of Actual Flow Rates and Maximum Allowable Rates

The water system's highest daily flow for the Strathroy Area was on October 23, 2024. The highest daily flow for Mt Brydges Area was on July 28, 2024. The Masterplan found that the water storage for each area is the limiting factor since there are no restrictions on the water supply received from the Lake Huron Primary Water Supply System. The required storage capacities is below the available storage capacity for both the Strathroy and Mt Brydges areas.

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### Comparison of Current Flow Rates to Historical

The table below shows the average day flow since 2005. The table shows that water usage has been consistent over the last several years for the Strathroy and Mt Brydges areas.

Year	Strathroy Flow (m <sup>3</sup> /day)	Mount Brydges (m <sup>3</sup> /day)	Average Day Flow (m <sup>3</sup> /day)
2005		894	6,554
2006		732	5,795
2007	4,962	748	5,710
2008	4,776	717	5,493
2009	4,597	691	5,288
2010	4,795	727	5,522
2011	4,602	683	5,285
2012	4,845	704	5,549
2013	4,852	663	5,515
2014	4,631	647	5,278
2015	4,380	662	5,042
2016	4,367	714	5,081
2017	4,325	724	5,049
2018	4,349	756	5,105
2019	4,362	795	5,157
2020	4,551	892	5,444
2021	4,591	949	5,540
2022	4,725	934	5,659
2023	4,499	910	5,409
2024	4,490	904	5,394