

February 28 2025

Mayor Beverly Nantel and Council
The Corporation of the Township of Dubreuilville
P.O. Box 367
Dubreuilville, Ontario
P0S 1B0

Re: For the Dubreuilville Water Treatment Plant; Waterworks No.: 210001442
O. Reg. 170 Section 11 & Schedule 22 Annual Reporting under SDWA

Attached are the [2024](#) Annual and Summary Reports for the Dubreuilville Drinking Water System. The Reports are based on information provided by Operators in accordance with Section 11 and Schedule 22 of O. Reg. 170/03, under the Safe Drinking Water Act. A confirmation of submission of the PTTW reporting, as required by O.Reg 387, is included as part of the report.

Please note that any Orders that you have received directly from the MECP or any major expense incurred by the Municipality which is not listed should be reviewed and added to the report.

As per Schedule 22 of O. Reg. 170/03, this Summary Report is to be provided to the members of the municipal council no later than [March 31, 2025](#). Please ensure this distribution.

Section 12 of O. Reg. 170/03, requires both the Summary Report and the Annual Report be made available for inspection by any member of the public during normal business hours, without charge. The reports should be made available for inspection at the office of the municipality or at a location that is reasonably convenient to the users of the water system

Yours truly,

Patrick Couture

Patrick Couture
Senior Operations Manager
Northwestern Ontario Regional Hub
807-228-2617

Copy to: Shelley B. Casey – CAO-Clerk/Deputy-Treasurer
Francis DeChamplain – Infrastructure Superintendent
Operations Staff – Dubreuilville Well Supply

Dubreuilville Drinking Water System

Large Municipal Residential Drinking Water System

January 1 – December 31, 2024

O.Reg 170/03 Schedule 22 Summary Report
O.Reg 170/03 Section 11 Annual Report

Issued: **February 28 2025**

Prepared by the



Ontario Clean Water Agency
Agence Ontarienne Des Eaux



Drinking-Water System Number: 210001442
Drinking-Water System Name: Dubreuilville Drinking Water System
Drinking-Water System Owner: The Corporation of the Township of Dubreuilville
Drinking-Water System Category: Large Municipal Residential Drinking Water-System
Period being reported: [January 1 – December 31, 2024](#)

SECTION 1: INTRODUCTION

This document is prepared in accordance with Section 11 and Schedule 22 of O.Reg.170/03 under the Safe Drinking Water Act and with Section 9 of O.Reg.387/04 under the Ontario Water Resources Act.

The reports are prepared by the Ontario Clean Water Agency on behalf of the Corporation of the Township of Dubreuilville. Acronyms and definitions can be found at the end of the report.

A copy of the Summary Report must be provided to the members of the municipal council by [March 31, 2025](#).

SECTION 2: REQUIREMENTS OF THE REPORTS

Schedule 22 Report

The report must list the requirements of the Act, the regulations, the system's approval and any order that the system failed to meet at any time during the period covered by the report. It must also specify the duration of the failure, and for each failure referred to, describe the measures that were taken to correct the failure.

For the purpose of enabling the owner of the system to assess the rated capability of their system to meet existing and future planned water uses, the following information is required to be included in this report:

- A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows.
- A comparison of the summary to the rated capacity and flow rates approved in the systems approval.

Section 11 Report

The annual report must contain the following:

- A brief description of the drinking water system and a list of chemicals used by the system.
- A description of any major expenses incurred during the period covered by the report to install, repair or replace required equipment.
- A summary of all adverse water quality incidents (AWQI) reported to the Ministry
- A summary of corrective actions taken in response all AWQIs



- A summary of all test results required under the regulation, under an approval, municipal drinking water license or order, including an OWRA order.
- A statement of where a Schedule 22 report will be available for inspection.

The report must be prepared not later than February 28 of the following year.

Regulation 387 Report

On or before March 31 in every year, every holder of a permit to take water (PTTW) shall submit to a Director the data collected and recorded for the previous year.

SECTION 3: SECTION 11 REPORT

Information	
Population Served	635
Does your Drinking-Water System serve more than 10,000 people?	Yes [] No [X]
Is your annual report available to the public at no charge on a web site on the Internet?	Yes [X] No []
Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.	Township of Dubreuilville 23, rue des Pins Dubreuilville, ON P0S 1B0
Number of Designated Facilities served:	N/A
Did you provide a copy of your annual report to all Designated Facilities you serve?	
Number of Interested Authorities you report to:	N/A
Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility?	
List all Drinking-Water Systems (if any), which receive all of their drinking water from your system:	
DWS Name:	DWS: #
Did you provide a copy of your annual report to all Drinking-Water System owners that are connected to you and to whom you provide all of its drinking water?	
Yes [] No []	
Indicate how you notified system users that your annual report is available, and is free of charge.	
[X] Public access/notice via the web [X] Public access/notice via Government Office (Municipal) [] Public access/notice via a newspaper [] Public access/notice via Public Request [X] Public access/notice via a Public Library [] Public access/notice via other method – Community Television Channel	

Note: For the following tables below, additional rows or columns may be added or an appendix may be attached to the report



Facility Description

The Corporation of the Township of Dubreuilville receives its municipal potable water from a well system that was built in 1985. The system underwent significant upgrades to the treatment and pumphouse in 2005. A service program was performed on the wells in 2022 that included static video surveys, well rehabilitation, and well performance testing. The field portion of this work was completed June 14 – 16, 2022.

The Dubreuilville well supply system is comprised of the following:

- Well #1 is located beneath the addition to the pumphouse that was built in 2005. This well is not available in standby mode, however, when needed, can be manually initiated by an operator.
- Well #2 is also located beneath the pumphouse and is the well that is operated on a regular basis to deliver the municipal potable water to the community.
- There is an installation of an Ultraviolet (UV) disinfection system within the existing pump house which consists of two (2) UV reactors each rated for a designed flow of 31.8 L/sec
- Chlorine is added to the water as it leaves the pumphouse and contact time to achieve the appropriate CT is accomplished in 60m / 300mm main located between the pumphouse and the first service connection
- The distribution system includes an in-ground 1,215m³ reservoir and services 38 fire hydrants and approximately 320 service connections
- Operation of the well pumps is controlled by the level in the reservoir which has an emergency storage capacity of approximately 2.5 days at normal flow conditions

Chemicals Used During Reporting Period

- Sodium Hypochlorite



Significant Expenses

Significant expenses were incurred to:

- Install Required Equipment
- X Repair Required Equipment
- Replace Required Equipment

Install	Repair	Replace	Description	Expense
	X		SCADA Upgrade	\$103,559.22
	X		UV Annual Servicing - EDA	\$8,770
	X		Annual Generator Maintenance WTP	\$1,775
	X		UV sensor repairs EDA environmental or Trojan	\$919
	X		Emergency generator repairs 85 electric	\$2,724
	X		well cleaning enhanced	\$102,114
	X		Distribution Swabbing	\$6,000

Provide details on the notices submitted in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 and reported to Spills Action Centre

Incident Date (yyyy/mm/dd)	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date (yyyy/mm/dd)
Feb 26 2024	Water bypassed UV's, CT not achieved			Correct UV issue, collect two sets of samples	March 1 2024

Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03, during this reporting period

	Number of Samples	Range of E.Coli Or Fecal Results (min #)-(max #)	Range of Total Coliform Results (min #)-(max #)	Number of HPC Samples	Range of HPC Results (min #)-(max #)
Raw Well 1	54	0 - 0	0 - 9	N/A	N/A
Raw Well 2	48	0 - 0	0 - 0	N/A	N/A
Treated	56	0 - 0	0 - 0	53	<10 - 10
Distribution	117	0 - 0	0 - 0	53	<10 - 2000

Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03 during the period covered by this Annual Report

	Number of Grab Samples	Range of Results (min #)-(max #)
Turbidity		
Raw #1	52	0.18 - 13.80 NTU
Raw #2	47	0.04 - 3.47 NTU
Chlorine		
Treated	8760	0.00 - 5.00 mg/L
Distribution	8760	0.00 - 3.02 mg/L
Distribution	159	0.52 - 1.82 mg/L
Fluoride (If the DWS provides fluoridation)	N/A	N/A

NOTE: For continuous monitors use 8760 as the number of samples.

* Turbidity & chlorine Min/Max (lows/highs) are due to planned maintenance and not plant upset.



Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order or other legal instrument

Date of legal instrument issued	Parameter	Date Sampled (yyyy/mm/dd)	Result	Unit of Measure
N/A	N/A	N/A	N/A	N/A

Summary of Inorganic parameters tested during this reporting period or the most recent sample results

Parameter	Sample Date (yyyy/mm/dd)	Result Value	Unit of Measure	MAC	Exceedance	
					MAC	½ MAC
Antimony	2024/01/29	< MDL 0.5	µg/L	6	No	No
Arsenic	2024/01/29	< MDL 1	µg/L	10	No	No
Barium	2024/01/29	87	µg/L	1000	No	No
Boron	2024/01/29	10	µg/L	5000	No	No
Cadmium	2024/01/29	< MDL 0.1	µg/L	5	No	No
Chromium	2024/01/29	5	µg/L	50	No	No
Mercury	2024/01/29	< MDL 0.1	µg/L	1	No	No
Selenium	2024/01/29	0.6	µg/L	50	No	No
Uranium	2024/01/29	6	µg/L	20	No	No
Fluoride	2024/01/29	< MDL 0.05	mg/L	1.5	No	No
Nitrate	2024/01/29	0.97	mg/L	10	No	No
	2024/04/29	0.71	mg/L	10	No	No
	2024/07/29	1.27	mg/L	10	No	No
	2024/10/28	0.9	mg/L	10	No	No
Nitrite	2024/01/29	< MDL 0.05	mg/L	1	No	No
	2024/04/29	< MDL 0.05	mg/L	1	No	No
	2024/07/29	< MDL 0.05	mg/L	1	No	No
	2024/10/28	< MDL 0.05	mg/L	1	No	No
Sodium	2024/01/29	15	mg/L	20**	No	Yes
*Lead	<i>Refer to Summary Table Below</i>					

*only for drinking water systems testing under Schedule 15.2; this includes large municipal non-residential systems, small municipal non-residential systems, non-municipal seasonal residential systems, large non-municipal non-residential systems, and small non-municipal non-residential systems

**There is no MAC for Sodium. The aesthetic objective for sodium in drinking water is 200 mg/L. The local Medical Officer of Health should be notified when the sodium concentration exceeds 20 mg/L so that this information may be communicated to local physicians for their use with patients on sodium restricted diets.

Summary of lead testing under Schedule 15.1 during this reporting period

(applicable to the following drinking water systems; large municipal residential systems, small municipal residential systems, and non-municipal year-round residential systems)

Location Type	Number of Samples	Range of Lead Results (min#) – (max #)	Number of Exceedances
Plumbing	N/A	N/A	N/A
Distribution	4	0.1 – 0.2	0
Distribution - Alkalinity_ CaCO3: (mg/L)	4	288 - 302	



Summary of Organic parameters sampled during this reporting period or the most recent sample results

Parameter	Sample Date (yyyy/mm/dd)	Result Value	Unit of Measure	MAC	Exceedance	
					MAC	½ MAC
Treated Water						
1,1-Dichloroethylene (ug/L)-TW	2024/01/29	< MDL 0.3	µg/L	14	No	No
1,2-Dichlorobenzene (ug/L)-TW	2024/01/29	< MDL 0.2	µg/L	200	No	No
1,2-Dichloroethane (ug/L)-TW	2024/01/29	< MDL 0.2	µg/L	5	No	No
1,4-Dichlorobenzene (ug/L)-TW	2024/01/29	< MDL 0.3	µg/L	5	No	No
2,3,4,6-Tetrachlorophenol (ug/L)-TW	2024/01/29	< MDL 0.3	µg/L	100	No	No
2,4,6-Trichlorophenol (ug/L)-TW	2024/01/29	< MDL 0.2	µg/L	5	No	No
2,4-Dichlorophenol (ug/L)-TW	2024/01/29	< MDL 0.2	µg/L	900	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L)-TW	2024/01/29	< MDL 0.377	µg/L	100	No	No
2-methyl-4-chlorophenoxyacetic acid (MCPA) (ug/L)-TW	2024/01/29	< MDL 6.28	µg/L	100	No	No
Alachlor (ug/L) -TW	2024/01/29	< MDL 0.492	µg/L	5	No	No
Atrazine + N-dealkylated metabolites (ug/L)-TW	2024/01/29	< MDL 0.5	µg/L	5	No	No
Azinphos-methyl (ug/L)-TW	2024/01/29	< MDL 0.41	µg/L	20	No	No
Benzene (ug/L)-TW	2024/01/29	< MDL 0.1	µg/L	1	No	No
Benzo(a)pyrene (ug/L)-TW	2024/01/29	< MDL 0.01	µg/L	0.01	No	Yes
Bromoxynil (ug/L)-TW	2024/01/29	< MDL 0.1	µg/L	5	No	No
Carbaryl (ug/L)-TW	2024/01/29	< MDL 2	µg/L	90	No	No
Carbofuran (ug/L) -TW	2024/01/29	< MDL 4	µg/L	90	No	No
Carbon Tetrachloride (ug/L) -TW	2024/01/29	< MDL 0.2	µg/L	2	No	No
Chlorpyrifos (ug/L) -TW	2024/01/29	< MDL 0.41	µg/L	90	No	No
Diazinon (ug/L)-TW	2024/01/29	< MDL 0.41	µg/L	20	No	No
Dicamba (ug/L)-TW	2024/01/29	< MDL 0.0879	µg/L	120	No	No
Dichloromethane (Methylene Chloride) (ug/L)-TW	2024/01/29	< MDL 1	µg/L	50	No	No
Diclofop-methyl (ug/L)-TW	2024/01/29	< MDL 0.126	µg/L	9	No	No
Dimethoate (ug/L)-TW	2024/01/29	< MDL 0.41	µg/L	20	No	No
Diquat (ug/L)-TW	2024/01/29	< MDL 0.3	µg/L	70	No	No
Diuron (ug/L)-TW	2024/01/29	< MDL 10	µg/L	150	No	No
Glyphosate (ug/L)-TW	2024/01/29	< MDL 20	µg/L	280	No	No
Malathion (ug/L)-TW	2024/01/29	< MDL 0.41	µg/L	190	No	No
Metolachlor (ug/L)-TW	2024/01/29	< MDL 0.273	µg/L	50	No	No
Metribuzin (ug/L)-TW	2024/01/29	< MDL 0.273	µg/L	80	No	No
Monochlorobenzene (Chlorobenzene) (ug/L)-TW	2024/01/29	< MDL 0.5	µg/L	80	No	No
Paraquat (ug/L)-TW	2024/01/29	< MDL 0.2	µg/L	10	No	No
PCB (ug/L)-TW	2024/01/29	< MDL 0.06	µg/L	3	No	No
Pentachlorophenol (ug/L)-TW	2024/01/29	< MDL 0.3	µg/L	60	No	No
Phorate (ug/L)-TW	2024/01/29	< MDL 0.273	µg/L	2	No	No
Picloram (ug/L)-TW	2024/01/29	< MDL 0.0879	µg/L	190	No	No
Prometryne (ug/L)-TW	2024/01/29	0.25	µg/L	1	No	No
Simazine (ug/L)-TW	2024/01/29	< MDL 0.41	µg/L	10	No	No
Terbufos (ug/L)-TW	2024/01/29	< MDL 0.273	µg/L	1	No	No
Tetrachloroethylene (ug/L)-TW	2024/01/29	< MDL 0.3	µg/L	10	No	No
Triallate (ug/L) -TW	2024/01/29	< MDL 0.273	µg/L	230	No	No
Trichloroethylene (ug/L)-TW	2024/01/29	< MDL 0.2	µg/L	5	No	No



Trifluralin (ug/L)-TW	2024/01/29	< MDL 0.273	µg/L	45	No	No
Vinyl Chloride (ug/L)-TW	2024/01/29	< MDL 0.1	µg/L	1	No	No
Distribution Water						
THM (NOTE: show latest annual average)	2024/10/28	35.8	µg/L	N/A		
	2024 Average	32.33	µg/L	100	No	No
Haloacetic acids (HAA) (NOTE: show latest annual average)	2024/10/28	16.0	µg/L	N/A		
	2024 Average	23.0	µg/L	80	No	No

SECTION 4: SCHEDULE 22 REPORT

Flows – Treated

In accordance with the **Municipal Drinking Water Licence 286 -101 Schedule C: System – Specific Conditions 1.0 Performance Limits**, the Dubreuilville drinking-water system shall not be operated to exceed the rated capacity for maximum flow rate from the treatment subsystem to the distribution system of **2747 m³ / day**.

The drinking-water system may be operated temporarily at a rate above the rated capacity where necessary for

- i. The purposes of fighting a large fire or,
- ii. The maintenance of the drinking-water system

In 2024, the average monthly treated flow rate was **14740.83 m³**; the average daily treated flow rate was **483.31 m³**; and the maximum daily treated flow rate for the year was **822 m³** representing **30%** of the allowable daily volume.

The Dubreuilville Drinking-Water facility operated **below** the rated capacity **in 2024**.

During the preparation of this report it was discovered that the recorded daily total volumes from the SCADA system appeared to be inaccurate. The discrepancy appears to have started with a SCADA upgrade on June 12 2024. The operator weekly readings from the flow meter were used for the remaining time period. The maximum daily flow is not available. The cause of the issue is under investigation.

Flows – Raw

The daily raw maximum flow is stated in the PTTW as a maximum rate of flow of **737 L/min (12.28 L/s)** and a maximum daily volume of **1047.419 m³/d** for Well #1. The PTTW as a maximum rate of flow of **1170 L/min (19.5 L/s)** and a maximum daily volume of **1682.417 m³/d** for Well #2.

The average monthly raw flow rate was **14740.83 m³**; the average raw daily flow rate was **483.31 m³**, with a maximum raw daily flow rate of **822 m³**.

The quantity of raw water supplied during the reporting period **did not** exceed the terms and conditions of the *Permit to Take Water*.

The daily raw water volumes have the same discrepancies as the treated flows noted above.



Summary of Flows

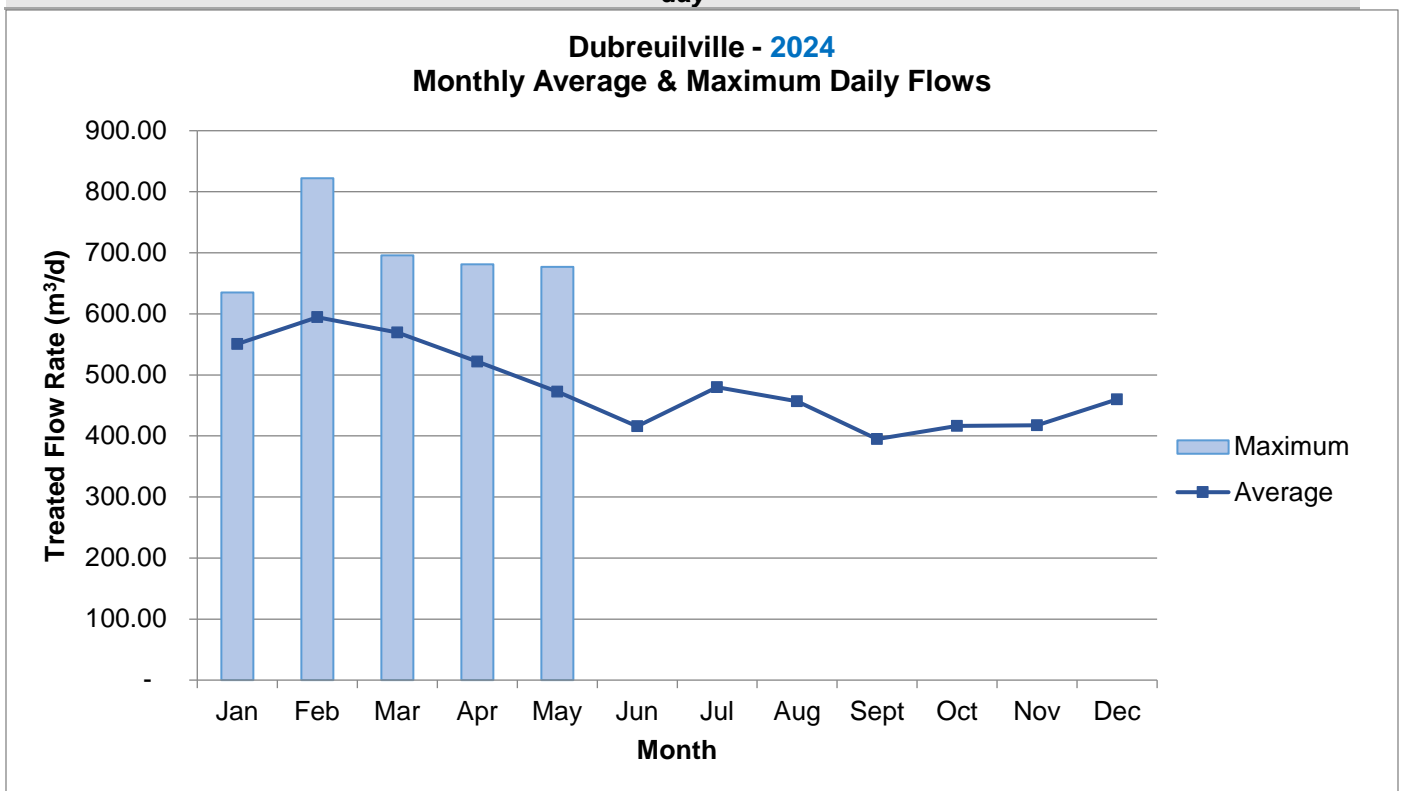
A summary of raw and treated flows are included in the tables/graphs below.

Monthly Raw & Treated Flow Rates for 2024

Month	Average Daily Flow Rate Raw (m ³ /d)	Maximum Daily Flow Rate Raw (m ³ /d)	Average Daily Flow Rate Treated (m ³ /d)	Maximum Daily Flow Rate Treated (m ³ /d)	Total Monthly Flow Rate Treated (m ³ /month)
January	550.68	635	550.68	635	17071
February	594.41	822	594.41	822	17238
March	569.32	696	569.32	696	17649
April	521.53	681	521.53	681	15646
May	472.71	677	472.71	677	14654
June	415.64	N/A	415.64	N/A	11638
July	479.63	N/A	479.63	N/A	16787
August	456.82	N/A	456.82	N/A	12791
September	394.82	N/A	394.82	N/A	11055
October	416.46	N/A	416.46	N/A	14576
November	417.68	N/A	417.68	N/A	11695
December	459.71	N/A	459.71	N/A	16090

2024 Total Treated Flows (m³) 176890

**Raw - The daily raw maximum rate of flow is 27.5 L/s and a maximum daily volume of 2376 m³/d.
Treated - The maximum flow rate from the treatment subsystem to the distribution system is 1800 m³ / day





System Failures & Corrective Actions

The Ministry of Environment did not conduct an inspection of the Dubreuilville Drinking Water System in 2024.

Item	Non-Compliance Identified	Compliance Date yyyy/mm/dd	Action Being Taken to Address item	Status
1				

During the preparation of this report it was discovered that the recorded daily total volumes from the SCADA system appeared to be inaccurate. The discrepancy appears to have started with a SCADA upgrade on June 12 2024. The operator weekly readings from the flow meter were used for the remaining time period. The maximum daily flow is not available. The cause of the issue is under investigation.

Adverse Water Quality Incidents (AWQIs)

In the reporting year of 2024, there was one adverse water quality incident (AWQI) report filed as summarized in the table below.

Incident Date yyyy/mm/dd	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date yyyy/mm/dd
Feb 26 2024	Water bypassed UV's, CT not achieved			Correct UV issue, collect two sets of samples	March 1 2024

SECTION 5: CONCLUSION

For the operating year of 2024, the Dubreuilville Drinking-Water System delivered water that, in all its treated and distribution samples, indicates the water to be free of bacteriological contamination.

In addition, the system was able to meet the demand of water use within the town without exceeding the Permit to Take Water or the Municipal Drinking Water Licence and Permit.



List of Acronyms and Definitions	
Alkalinity	The capacity of water for neutralizing an acid solution
AWQI	Adverse Water Quality Incident- when a water sample test result exceeds the Ontario Drinking Water Quality Standards
Backwash	Water pumped backwards to clean filters
BWA	Boil Water Advisory; Issued when risk of contamination is possible in drinking water
CFU	Colony Forming Units
Chlorine Residual	A low level of chlorine remaining in water after disinfection occurs
DW	Distribution Water
DWA	Drinking Water Advisory; Issued when water cannot be consumed by any means
DWWP	Drinking Water Works Permit - provides a description of the overall system
E.Coli	Bacteria used as indicators to measure the degree of pollution and sanitary quality of water
GUDI	Groundwater Under Direct Influence – Considered to be surface water under O.Reg 170/03
HPC	Heterotrophic Plant Count
L/s	Litres per Second
m³/d	Cubic Metres per Day
MAC	Maximum Acceptable Concentration
MDL	Minimum Detection Level
MDWL	Municipal Drinking Water Licence - relates to the operation and performance requirements
mg/L	Miligrams per Litre
Ministry	Ministry of the Environment, Conservation and Parks
MECP	Ministry of the Environment, Conservation and Parks
NDOGN	No Data: Overgrown with Non Target Bacteria
NDOGT	No Data: Overgrown with Target Bacteria
O.Reg	Ontario Regulation
PTTW	Permit to Take Water – Permit which allows water taking from groundwater or surface water
RW	Raw Water
TC	Total Coliforms
TSS	Total Suspended Solids
Turbidity	Cloudiness or haziness of water
TW	Treated Water