

2022 Section 11 Annual Report

Dubreuilville Drinking Water System

February 2023

Prepared by the



Ontario Clean Water Agency
Agence Ontarienne Des Eaux



Section 11 ANNUAL REPORT

| | |
|---------------------------------|---|
| Drinking-Water System Number: | 210001442 |
| Drinking-Water System Name: | Dubreuilville Well Supply |
| 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, 2022 |

Complete if your Category is Large Municipal Residential or Small Municipal Residential

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 POS 1B0 |
|---|

Complete for all other Categories.

Number of Designated Facilities served:

N/A

Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [] No []

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? Yes [] No []

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

List all Drinking-Water Systems (if any), which receive all of their drinking water from your system:

| Drinking Water System Name | Drinking Water System Number |
|----------------------------|------------------------------|
| N/A | N/A |



Ontario Drinking-Water Systems Regulation O. Reg. 170/03

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.

- Public access/notice via the web
- Public access/notice via Government Office (Municipal)
- Public access/notice via a newspaper
- Public access/notice via Public Request
- Public access/notice via a Public Library
- Public access/notice via other method _____

Describe your Drinking-Water System

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



Ontario Drinking-Water Systems Regulation O. Reg. 170/03

- 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

List all water treatment chemicals used over this reporting period

- Sodium Hypochlorite

Were any significant expenses incurred to?

- Install required equipment
- Repair required equipment
- Replace required equipment

Please provide a brief description and a breakdown of monetary expenses incurred

| Install | Repair | Replace | Description | Expense |
|---------|--------|---------|------------------------------|-------------|
| | | X | UV annual service/parts | \$10,607.82 |
| | | X | Back up UPS replacement | \$1,751.70 |
| | X | | Well rehabilitation | \$57,423.17 |
| | | X | Level controller replacement | \$1,940.37 |

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 | Parameter | Result | Unit of Measure | Corrective Action | Corrective Action Date |
|---------------|---|--------|-----------------|----------------------------|------------------------|
| 26-Sept-2022 | Improper disinfection due to well pump failure. Chlorine residual did not drop below 1.0 mg/l | | | Pump reset & clean samples | 3-Oct-2022 |



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 | 47 | 0-0 | 0-0 | N/A | N/A |
| Well #2 | 47 | 0-0 | 0-5 | N/A | N/A |
| Treated | 47 | 0-0 | 0-0 | 16 | 0-4 |
| Distribution | 98 | 0-0 | 0-0 | 9 | 0-5 |

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 Well #1 | 27 | 0.34 - 10.8 |
| Raw Well #2 | 34 | 0.23 - 23.3 |
| Treated | 8760 | 0 - 4.99 |
| Chlorine* | | |
| Treated | 8760 | 0.00 - 5 |
| Distribution | 8760 | 0.00 - 2.37 |
| 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.*

NOTE: Record the unit of measure if it is not milligrams per litre.

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 | 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 | Result Value | Unit of Measure | Exceedance |
|-----------|------------------------------|--------------|-----------------|------------|
| Antimony | 2022/01/26 | < 0.6 | µg/L | No |
| Arsenic | 2022/01/26 | < 1.0 | µg/L | No |
| Barium | 2022/01/26 | 80.0 | µg/L | No |
| Boron | 2022/01/26 | < 50.0 | µg/L | No |
| Cadmium | 2022/01/26 | < 0.1 | µg/L | No |
| Chromium | 2022/01/26 | < 1.0 | µg/L | No |
| *Lead | Refer to Summary Table Below | | | |
| Mercury | 2022/01/26 | < 0.1 | µg/L | No |
| Selenium | 2022/01/26 | < 1.0 | µg/L | No |
| Sodium | 2021/01/27 | 16.8 | mg/L | No |
| Uranium | 2022/01/26 | 5.6 | µg/L | No |
| Fluoride | 2019/01/08 | 0.03 | mg/L | No |
| Nitrite | 2022/01/17 | 0.016 | mg/L | No |
| | 2022/04/11 | < 0.01 | mg/L | No |
| | 2022/07/11 | < 0.01 | mg/L | No |
| | 2022/10/03 | < 0.020 | mg/L | No |
| Nitrate | 2022/01/17 | 0.784 | mg/L | No |
| | 2022/04/11 | 0.709 | mg/L | No |
| | 2022/07/11 | 0.781 | mg/L | No |
| | 2022/10/03 | 0.932 | mg/L | No |

*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

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 | N/A | N/A | N/A |



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

| Parameter | Sample Date | Result Value | Unit of Measure | Exceedance |
|---|----------------------------|--------------|-----------------|------------|
| Alachlor | 2022/01/26 | < 0.1 | µg/L | No |
| Atrazine | 2022/01/26 | < 0.1 | ug/L | No |
| Atrazine & Metabolites | 2022/01/26 | < 0.2 | ug/L | No |
| Azinphos-methyl | 2022/01/26 | < 0.1 | µg/L | No |
| Benzene | 2022/01/26 | < 0.5 | µg/L | No |
| Benzo(a)pyrene | 2022/01/26 | < 0.005 | µg/L | No |
| Bromoxynil | 2022/01/26 | < 0.2 | µg/L | No |
| Carbaryl | 2022/01/26 | < 0.2 | µg/L | No |
| Carbofuran | 2022/01/26 | < 0.2 | µg/L | No |
| Carbon Tetrachloride | 2022/01/26 | < 0.2 | µg/L | No |
| Chlorpyrifos | 2021/01/27 | < 0.1 | µg/L | No |
| Diazinon | 2022/01/26 | < 0.1 | µg/L | No |
| Dicamba | 2022/01/26 | < 0.2 | µg/L | No |
| 1,2-Dichlorobenzene | 2022/01/26 | < 0.5 | µg/L | No |
| 1,4-Dichlorobenzene | 2022/01/26 | < 0.5 | µg/L | No |
| 1,2-Dichloroethane | 2022/01/26 | < 0.5 | µg/L | No |
| 1,1-Dichloroethylene (vinylidene chloride) | 2022/01/26 | < 0.5 | µg/L | No |
| Dichloromethane (Methylene Chloride) | 2022/01/26 | < 5.0 | µg/L | No |
| 2-4 Dichlorophenol | 2022/01/26 | < 0.3 | µg/L | No |
| 2,4-Dichlorophenoxy acetic acid (2,4-D) | 2022/01/26 | < 0.2 | µg/L | No |
| Diclofop-methyl | 2022/01/26 | < 0.2 | µg/L | No |
| Dimethoate | 2022/01/26 | < 0.1 | µg/L | No |
| Diquat | 2022/01/26 | < 1.0 | µg/L | No |
| Diuron | 2022/01/26 | < 1.0 | µg/L | No |
| Glyphosate | 2022/01/26 | < 5.0 | µg/L | No |
| Haloacetic acids (HAA)* (NOTE: show latest annual average) | 3-Oct-2022 2022 Average | 14.4 21.4 | µg/L | No |
| Malathion | 2022/01/26 | < 0.1 | µg/L | No |
| Metolachlor | 2022/01/26 | < 0.1 | µg/L | No |
| Metribuzin | 2022/01/26 | < 0.1 | µg/L | No |
| Monochlorobenzene (Chlorobenzene) | 2022/01/26 | < 0.5 | µg/L | No |
| Paraquat | 2022/01/26 | < 1.0 | µg/L | No |
| Pentachlorophenol | 2022/01/26 | < 0.5 | µg/L | No |
| Phorate | 2022/01/26 | < 0.1 | µg/L | No |
| Picloram | 2022/01/26 | < 0.2 | µg/L | No |
| Polychlorinated Biphenyls(PCB) | 2022/01/26 | < 0.035 | µg/L | No |



Ontario Drinking-Water Systems Regulation O. Reg. 170/03

| | | | | |
|---|----------------------------|--------------|--------------|----------|
| Prometryne | 2022/01/26 | < 0.1 | µg/L | No |
| Simazine | 2022/01/26 | < 0.1 | µg/L | No |
| THM (NOTE: show latest annual average) | 3-Oct-2022 2022 Average | 15.4 26.8 | µg/L µg/L | No No |
| Terbufos | 2022/01/26 | < 0.2 | µg/L | No |
| Tetrachloroethylene | 2022/01/26 | < 0.5 | µg/L | No |
| 2,3,4,6-Tetrachlorophenol | 2022/01/26 | < 0.5 | µg/L | No |
| Triallate | 2022/01/26 | < 0.1 | µg/L | No |
| Trichloroethylene | 2022/01/26 | < 0.5 | µg/L | No |
| 2,4,6-Trichlorophenol | 2022/01/26 | < 0.5 | µg/L | No |
| Trifluralin | 2022/01/26 | < 0.1 | µg/L | No |
| Vinyl Chloride | 2022/01/26 | < 0.2 | µg/L | No |
| MCPA | 2022/01/26 | < 0.2 | µg/L | No |

List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards.

| Parameter | Result Value | Unit of Measure | Date of Sample |
|-----------|--------------|-----------------|----------------|
| Sodium | 16.8 | mg/L | 2021/01/27 |

COUNCIL RESOLUTION



Moved By: Luc
Seconded By: Krystal

DATE: March 8, 2023
Resolution No. 23-073

Whereas that the Council of the Corporation of the Township of Dubreuilville does hereby wish to receive and approve the attached letter dated February 2023 from the Ontario Clean Water Agency with regards to the 2022 annual summary report for the Dubreuilville Drinking-Water System, as presented.

| | | |
|-------------------------------------|--------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Carried | Defeated | Deferred |

| RECORDED VOTE: | YES | NO |
|-----------------------------|-----|-----|
| Councillor Hélène Perth | ___ | ___ |
| Councillor Luc Lévesque | ___ | ___ |
| Councillor Julila Hemphill | ___ | ___ |
| Councillor Krystal Lévesque | ___ | ___ |
| Mayor Beverly Nantel | ___ | ___ |

Declaration of Pecuniary Interest and General Nature Thereof:



Ontario Clean Water Agency
Agence Ontarienne Des Eaux

901 Main Street
P.O. Box 728
Geraldton, Ontario. P0T 1M0
Fax: 807-854-0483

February 2023

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

Re: 2022 Annual Summary Report for the Dubreuilville Drinking-Water System

Ontario's Drinking-Water Systems Regulation (O.Reg.170/03), made under the *Safe Drinking Water Act, 2002*, requires that the owner of a drinking water system prepare an annual summary for municipalities on the operation of the system and the quality of its water.

The annual summary must cover the period of January 1st to December 31st in a year and must *be prepared not later than March 31st* of the following year. Pursuant to the legislative requirements, enclosed for your records is the 2022 Annual Summary for the Dubreuilville Drinking-Water System.

Pursuant to the legislative requirements, *Schedule 22 Summary Reports for Municipalities*, the annual summary must:

- (a) list the requirements of the Act, the regulations, the system's approval, drinking water works permit, municipal drinking water licence, and any orders applicable to the system that were not met at any time during the period covered by the report; and,
- (b) for each requirement referred to in clause (a) that was not met, specify the duration of the failure and the measures that were taken to correct the failure."

- O. Reg. 170/03 s. 22 (2)

"The report must also include the following information for the purpose of enabling the owner of the system to assess the rated capability of their system to meet existing and planned uses of the system:

1. 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.
2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval, drinking water works permit or municipal drinking water licence, or if the system is receiving all of its water from another system under an agreement pursuant to subsection 5 (4), to the flow rates specified in the written agreement."

-O. Reg. 170/03 s. 22 (3)

In addition, Section 12 (1) - 4 - gives the direction that a copy of the annual summary for the system is given, without charge, to every person who requests a copy and be made available for inspection by any member of the public during normal business hours. The reports should be made available at the office of the municipality, or at a location that is accessible to the users of the water system.

This report was prepared by the Ontario Clean Water Agency on behalf of the Township of Dubreuilville and is based on information kept on record by OCWA at the Dubreuilville Drinking-Water System. The report covers the period January 1st through to December 31st 2022.

Yours truly,

Patrick Albert

Patrick Albert
General Manager
Northwestern Ontario Regional Hub
807-853-0650

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

2022 Schedule 22 Annual Summary Report

Dubreuilville Drinking-Water System

February 2023

Prepared by the



Ontario Clean Water Agency
Agence Ontarienne Des Eaux

Table of Contents

| | |
|---|----------|
| Section 1: Introduction | 2 |
| Section 2: What Does This Report Contain? | 2 |
| Section 3: Daily Flow Rates | 3 |
| Section 4: System Failures and Corrections | 5 |
| Section 5: Conclusion | 5 |

Section 1: Introduction

This report is a summary of water quality information for the Dubreuilville Drinking-Water System, published in accordance with Schedule 22 of Ontario's Drinking-Water Systems Regulation for the reporting period of January 1st to December 31st, 2022. The Dubreuilville Drinking-Water System is categorized as a Large Municipal Residential Drinking Water System.

This report is prepared by The Ontario Clean Water Agency on behalf of the Corporation of the Township of Dubreuilville. A copy of the Summary Report is to be provided to the members of the municipal council by March 31st, 2023.

Section 2: What Does This Report Contain?

"The report must,

- (a) list the requirements of the Act, the regulations, the system's approval, drinking water works permit, municipal drinking water licence, and any orders applicable to the system that were not met at any time during the period covered by the report; and,
- (b) for each requirement referred to in clause (a) that was not met, specify the duration of the failure and the measures that were taken to correct the failure."

- O. Reg. 170/03 s. 22 (2)

"The report must also include the following information for the purpose of enabling the owner of the system to assess the rated capability of their system to meet existing and planned uses of the system:

1. 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.
2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval, drinking water works permit or municipal drinking water licence, or if the system is receiving all of its water from another system under an agreement pursuant to subsection 5 (4), to the flow rates specified in the written agreement."

-O. Reg. 170/03 s. 22 (3)

Section 3: Daily Flow Rates

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 2022, the average monthly raw flow rate was 16865.41 m³; the average raw daily flow rate was 554.48 m³, with a maximum raw daily flow rate of 1,494 m³.

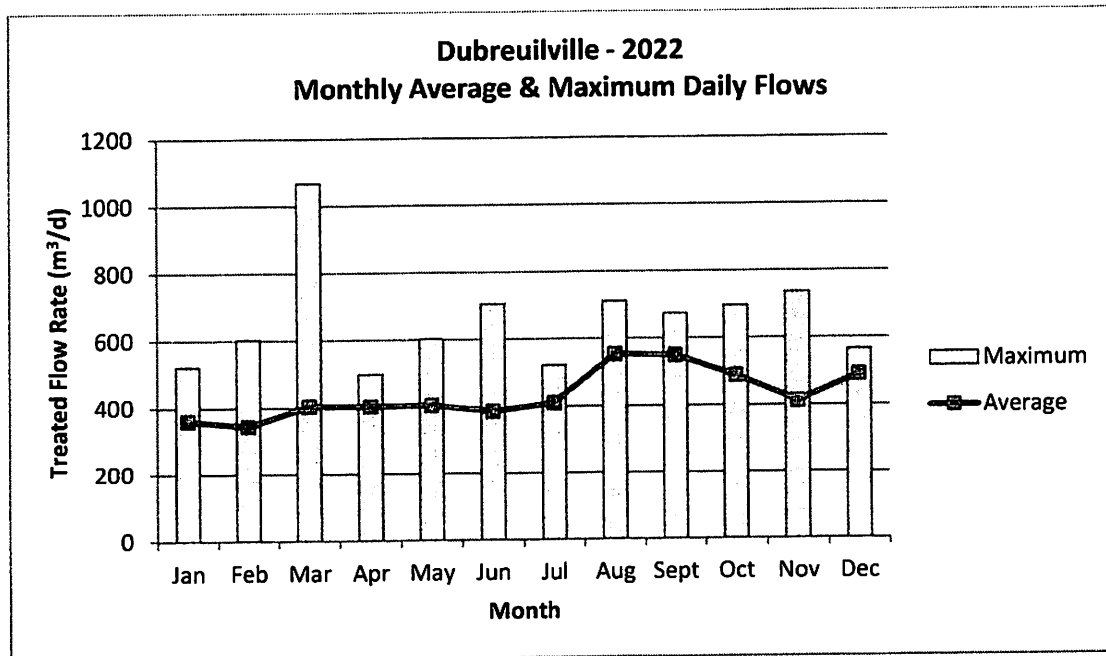
In 2022, the average monthly treated flow rate was 13229.75 m³; the average daily treated flow was 434.25 m³ and the maximum daily treated flow for the year was 1068.00 m³; this represents 38.88% of the allowable daily volume.

A summary of raw and treated flows, including maximum raw flow into the treatment system as well as treated average, maximum and total flow rates are included in the tables below.

The quantity of raw water supplied during the reporting period did not exceed the terms and conditions of the *Permit to Take Water* nor did the flows directed to the treatment system exceed the rated capacity for this system.

Monthly Raw & Treated Flow Rates for 2022

| Month | Average Daily Raw Flow Rate (m ³ /d) | Maximum Daily Raw Flow Rate (m ³ /d) | Average Daily Treated Flow Rate (m ³ /d) | Maximum Daily Treated Flow Rate (m ³ /d) | Total Monthly Treated Flow Rate (m ³ /month) |
|---|---|---|---|---|---|
| January | 363.35 | 527 | 361.29 | 523.00 | 11,200.00 |
| February | 345.14 | 604 | 344.00 | 603.00 | 9,632.00 |
| March | 405.13 | 1,069 | 404.29 | 1,068.00 | 12,533.00 |
| April | 402.93 | 499 | 402.57 | 499.00 | 12,077.00 |
| May | 405.58 | 603 | 405.19 | 603.00 | 12,561.00 |
| June | 500.17 | 944 | 386.00 | 706.00 | 11,580.00 |
| July | 410.19 | 523 | 410.03 | 523.00 | 12,711.00 |
| August | 1073.1 | 1494 | 554.42 | 712.00 | 17,187.00 |
| September | 1,133.97 | 1,416 | 549.63 | 676.00 | 16,489.00 |
| October | 697.26 | 1463 | 489.39 | 698.00 | 15,171.00 |
| November | 412.5 | 737 | 412.50 | 737.00 | 12,375.00 |
| December | 491.65 | 567 | 491.65 | 567.00 | 15,241.00 |
| 2022 Total Treated Flows (m³) | | | | | 158,757.00 |



Section 4: System Failures and Correction

The Ministry of the Environment conducted an announced inspection of the Dubreuilville Drinking-Water System on December 14 2022. The 2022 inspection report was not available at the time of this report.

| Item | Non-Compliance Identified | Compliance Date | Action Being Taken to Address item | Status |
|------|---------------------------|-----------------|------------------------------------|--------|
| N/A | N/A | N/A | N/A | N/A |

Section 5: Conclusion

In the reporting year of 2022, there was one adverse water quality incident (AWQI) reports filed as summarized below.

| Incident Date | Parameter | Result | Unit of Measure | Corrective Action | Corrective Action Date |
|---------------|--|--------|-----------------|----------------------------|------------------------|
| Sept 26 2022 | Well pump had automation issue, plant didn't shut down. UV wasn't running during this time | | | Pump reset & clean samples | Oct 3 2022 |

A review of the treated water samples showed the plant met or exceeded the requirements of ODWS (Ontario's Drinking-Water Standards). Treated water samples at the plant and in the distribution system were shown to be free of bacteriological contaminants.

For the operating year of 2022, the Dubreuilville Drinking-Water System was able to meet the demand of water use within the town without exceeding the Municipal Drinking Water Licence and Permit to Take Water.