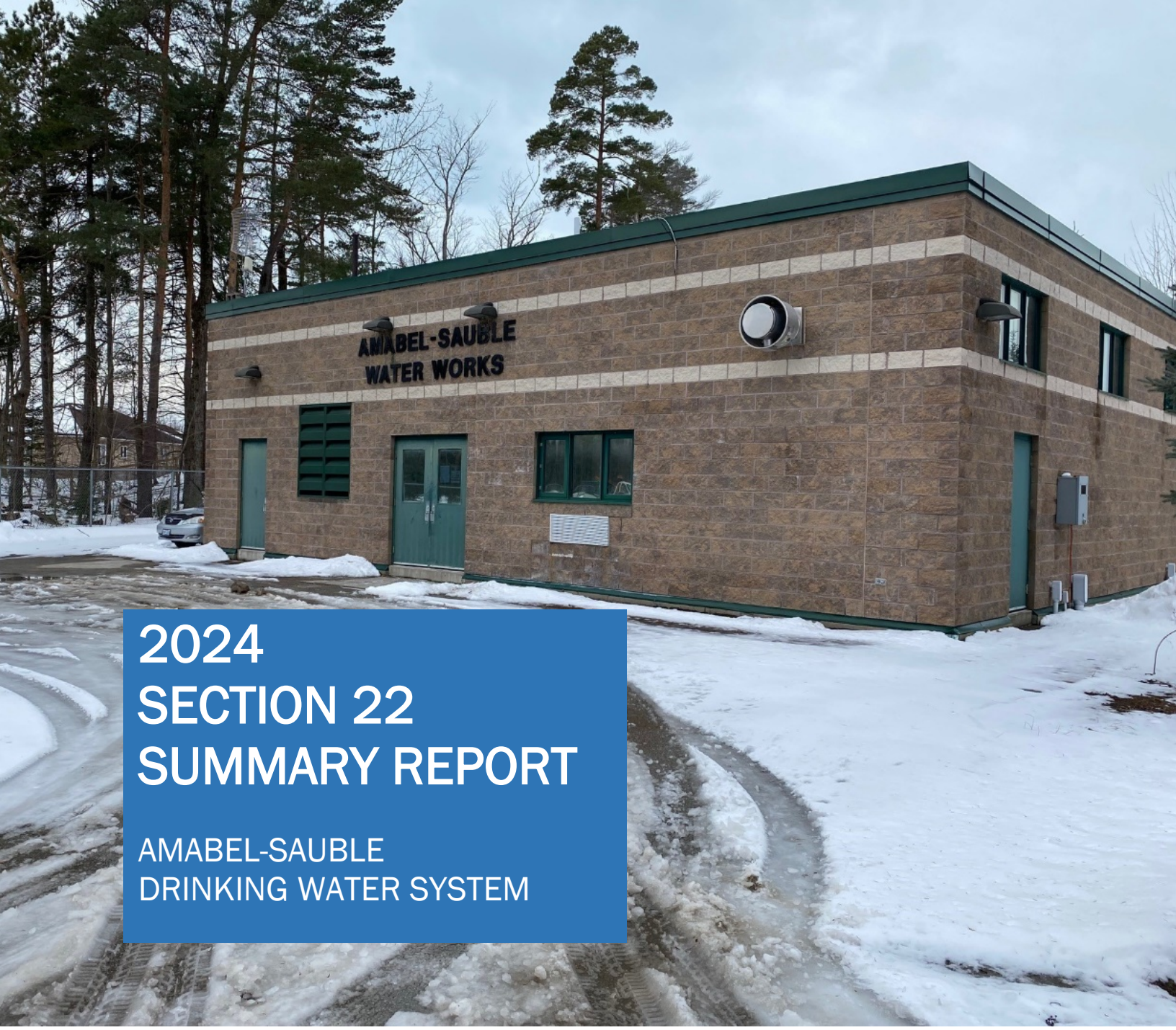



# 2024 SECTION 22 SUMMARY REPORT

## AMABEL-SAUBLE DRINKING WATER SYSTEM

For the period of:
**JANUARY 1, 2024 TO DECEMBER 31, 2024**

Prepared for the Town of South Bruce Peninsula by the Ontario Clean Water Agency

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Town of SOUTH BRUCE PENINSULA

Drinking Water System Regulation: O. Reg 170/03
Schedule 22 Summary Report: January 1, 2024 to December 31, 2024
Town of South Bruce Peninsula: Amabel-Sauble Drinking Water System

This report was prepared in accordance with the requirements of *O.Reg 170/03, Schedule 22, Summary Reports for Municipalities* for the following system and reporting period:

| | |
|---|---|
| **Drinking-Water System Number:** | 220007917 |
| **Drinking-Water System Name:** | Amabel-Sauble Drinking Water System |
| **Drinking-Water System Owner:** | Town of South Bruce Peninsula |
| **Drinking-Water System Category:** | Large Municipal Residential |
| **Period being reported:** | January 1, 2024 – December 31, 2024 |

## 1. Issue(s) of Non-Compliance

A Ministry of Environment, Conservation and Parks (MECP) Drinking Water System Inspection was conducted on October 2, 2024 for the period covering November 17, 2023 to October 2, 2024. On December 13, 2024 the Inspection Report was issued and an inspection rating of 100% was received.

The following is a summary of non-compliances noted in the MECP Inspection Report, as well as the duration and the measures that were taken to correct the non-compliance. If any self-reported non-compliances were included in the inspection report, they will be noted in Table 1.

### Table 1. Non-Compliances and Corrective Actions noted in the 2023/2024 MECP Inspection Report

| Non-Compliance(s) | Duration | Required Actions & Corrective Actions |
|---|---|---|
| N/A | N/A | N/A |

Table 2 summarizes incidents interpreted the Operating Authority as instances where any requirements of the Act, the regulations, the system's approval, the drinking water works permit (DWWP), the municipal drinking water licence (MDWL), and any orders applicable were not met. The Operating Authority reported the following incidents to the MECP and confirmation of whether the incidents are considered non-compliance is noted in the MECP Inspection Report and included in Table 1.

### Table 2. Self-Reported Incidents and Corrective Actions for the Reporting Period

| Incident | Duration | Corrective Actions |
|---|---|---|
| N/A | N/A | N/A |

For information on any Adverse Water Quality Incident(s) that may have occurred during the reporting period, please refer to the Amabel-Sauble Drinking Water System Annual Report (Section 11).

# 2. Assessment of Flowrates and Quantity of Water Supplied

The following tables summarize the quantities and flow rates of water supplied during the reporting period, including monthly averages and maximum daily flows as well as a comparison to the rated capacity and flow rates approved in the system's approval, DWWP or MDWL.

## 2.1 Treated Water

| | |
|---|---|
| **Municipal Drinking Water License (MDWL):** | 094-101 (Issue Number: 4) |
| **Allowable Rated Capacity:** | 687 $m^3$/day |
| **Allowable Flowrate into Treatment System:** | N/A |

As per the MDWL, the maximum daily volume of treated water that flows from the treatment subsystem to the distribution system shall not exceed the listed rated capacity. However, the MDWL allows a system to be operated temporarily at a maximum daily volume and/or a maximum flowrate above the values set out in the MDWL for the purposes of fighting a large fire or for the maintenance of the drinking water system.

**Table 3. Treated Water Annual and Monthly Average and Maximum Flows with Comparison to Rated Capacity and Total Volume for 2024**

| Treated Water Flow | | | | | |
|---|---|---|---|---|---|
| **Timeframe** | **Average Flow ($m^3$/day)** | **Percent of Rated Capacity** | **Maximum Flow ($m^3$/day)** | **Percent of Rated Capacity** | **Total Volume ($m^3$)** |
| January | 90.2 | 13.1% | 111.6 | 16.2% | 2,797 |
| February | 89.4 | 13.0% | 116.8 | 17.0% | 2,592 |
| March | 83.0 | 12.1% | 101.6 | 14.8% | 2,574 |
| April | 96.6 | 14.1% | 203.7 | 29.7% | 2,898 |
| May | 114.6 | 16.7% | 158.4 | 23.1% | 3,553 |
| June | 141.6 | 20.6% | 215.6 | 31.4% | 4,249 |
| July | 183.5 | 26.7% | 231.0 | 33.6% | 5,689 |
| August | 218.6 | 31.8% | 299.2 | 43.6% | 6,776 |
| September | 181.8 | 26.5% | 292.7 | 42.6% | 5,454 |
| October | 168.8 | 24.6% | 278.3 | 40.5% | 5,232 |
| November | 153.3 | 22.3% | 183.5 | 26.7% | 4,598 |
| December | 130.0 | 18.9% | 177.4 | 25.8% | 4,030 |
| **2024** | **137.8** | **20.1%** | **299.2** | **43.6%** | **50,443** |

A review of flow information for the reporting period indicates that the drinking water system operated within the rated capacity specified in the MDWL, for the maximum treated volume of treated water that flows from the treatment subsystem to the distribution system.

## Table 4. Treated Water Annual and Monthly Average and Maximum Flowrates for 2024

| Treated Water Flowrate | | |
|---|---|---|
| **Timeframe** | **Average Flowrate (L/sec)** | **Maximum Flowrate (L/sec)** |
| January | 1.05 | 24.61[4a] |
| February | 1.03 | 59.07[4a] |
| March | 0.96 | 41.55[4a] |
| April | 1.12 | 61.01[4a] |
| May | 1.33 | 63.97[4a] |
| June | 1.64 | 29.29[4a] |
| July | 2.13 | 47.36[4a] |
| August | 2.53 | 62.48[4a] |
| September | 2.11 | 61.82[4a] |
| October | 1.95 | 64.95[4a] |
| November | 1.77 | 55.28[4a] |
| December | 1.51 | 64.05[4a] |
| **2024** | **1.60** | **64.95**[4a] |

[4a]*High maximum flowrates were a result of hydrant usage by the fire department.*

The applicable MDWL for the reporting period did not list a maximum allowable limit for the flowrate of water that flows into a treatment subsystem. A summary of flowrates of water that flows into the treatment system can be found in Tables 6, 8 and 10.

## 2.2 Raw Water

| | |
|---|---|
| **Permit to Take Water Number:** | 8444-AKMQCN |
| **Allowable Maximum Raw Water Volume - Well PW1:** | 687 $m^3$/day |
| **Allowable Maximum Raw Water Flowrate - Well PW1:** | 477 L/min (7.95 L/sec) |
| **Allowable Maximum Volume of Raw Water - Well PW2:** | 687 $m^3$/day |
| **Allowable Maximum Raw Water Flowrate – Well PW2:** | 477 L/min (7.95 L/sec) |
| **Allowable Maximum Raw Water Volume - Well W10 Winburk:** | 262 $m^3$/day |
| **Allowable Maximum Raw Water Flowrate - Well W10 Winburk:** | 364 L/min (6.06 L/sec) |
| **Allowable Maximum Total Taking from Any Combination of Well PW1 and/or Well PW2 (for up to 120 days per year)** | 687 $m^3$/day |
| **Allowable Maximum Total Taking from Any Combination of Well PW1 and/or Well PW2** | 535.68 $m^3$/day |

As per the PTTW, water shall only be taken from the specified source(s) and at the rates and amounts taken as specified in the permit.

### Table 5. Raw Water (Well PW1) Monthly Average, Maximum Flow and Total Volume for 2024

| Raw Water Flow – Well PW1 | | | | | |
|---|---|---|---|---|---|
| **Timeframe** | **Average Flow ($m^3$/day)** | **Percent of Allowable Volume** | **Maximum Flow ($m^3$/day)** | **Percent of Allowable Volume** | **Total Volume ($m^3$)** |
| January | 45.6 | 6.6% | 66.4 | 9.7% | 1,412 |
| February | 46.9 | 6.8% | 60.3 | 8.8% | 1,360 |
| March | 51.2 | 7.5% | 74.2 | 10.8% | 1,434 |
| April | 50.8 | 7.4% | 94.7 | 13.8% | 1,524 |
| May | 60.6 | 8.8% | 110.9 | 16.1% | 1,880 |
| June | 71.8 | 10.5% | 142.3 | 20.7% | 2,155 |
| July | 91.4 | 13.3% | 157.7 | 23.0% | 2,834 |
| August | 111.6 | 16.2% | 180.1 | 26.2% | 3,460 |
| September | 89.2 | 13.0% | 181.2 | 26.4% | 2,676 |
| October | 84.7 | 12.3% | 130.2 | 19.0% | 2,624 |
| November | 77.7 | 11.3% | 124.8 | 18.2% | 2,330 |
| December | 64.6 | 9.4% | 116.2 | 16.9% | 2,002 |
| **2024** | **70.8** | **10.3%** | **181.2** | **26.4%** | **25,692** |

A review of flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable daily raw water volume for Well PW1.

## Table 6. Raw Water (Well PW1) Annual and Monthly Average and Maximum Flowrates for 2024

| Raw Water Flowrate – Well PW1 | | |
|---|---|---|
| **Timeframe** | **Average Flowrate (L/sec)** | **Maximum Flowrate (L/sec)** |
| January | 3.81 | 4.70 |
| February | 3.98 | 4.97 |
| March | 3.97 | 4.89 |
| April | 3.84 | 4.80 |
| May | 3.98 | 4.92 |
| June | 3.98 | 4.86 |
| July | 3.98 | 5.01 |
| August | 3.98 | 4.91 |
| September | 3.99 | 4.93 |
| October | 3.99 | 4.82 |
| November | 3.99 | 4.88 |
| December | 3.99 | 4.98 |
| **2024** | **3.96** | **5.01** |

A review of flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable raw water flowrate for Well PW1.

## Table 7. Raw Water (Well PW2) Monthly Average, Maximum Flow and Total Volume for 2024

| Raw Water Flow – Well PW2 | | | | | |
|---|---|---|---|---|---|
| **Timeframe** | **Average Flow ($m^3$/day)** | **Percent of Allowable Volume** | **Maximum Flow ($m^3$/day)** | **Percent of Allowable Volume** | **Total Volume ($m^3$)** |
| January | 51.4 | 7.5% | 75.0 | 10.9% | 1,542 |
| February | 48.1 | 7.0% | 61.6 | 9.0% | 1,348 |
| March | 50.7 | 7.4% | 72.8 | 10.6% | 1,421 |
| April | 50.4 | 7.3% | 93.0 | 13.5% | 1,512 |
| May | 59.9 | 8.7% | 109.0 | 15.9% | 1,857 |
| June | 71.0 | 10.3% | 139.9 | 20.4% | 2,131 |
| July | 90.5 | 13.2% | 155.0 | 22.6% | 2,805 |
| August | 110.0 | 16.0% | 170.7 | 24.8% | 3,409 |
| September | 88.8 | 12.9% | 176.9 | 25.7% | 2,665 |
| October | 83.7 | 12.2% | 127.0 | 18.5% | 2,594 |
| November | 76.2 | 11.1% | 121.6 | 17.7% | 2,285 |
| December | 63.7 | 9.3% | 113.1 | 16.5% | 1,976 |
| **2024** | **70.8** | **10.3%** | **176.9** | **25.7%** | **25,545** |

A review of flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable daily raw water volume for Well PW2.

## Table 8. Raw Water (Well PW2) Annual and Monthly Average and Maximum Flowrates for 2024

| Raw Water Flowrate – Well PW2 | | |
|---|---|---|
| **Timeframe** | **Average Flowrate (L/sec)** | **Maximum Flowrate (L/sec)** |
| January | 4.07 | 4.95 |
| February | 3.90 | 4.83 |
| March | 3.91 | 4.88 |
| April | 3.78 | 4.88 |
| May | 3.91 | 4.91 |
| June | 3.91 | 4.91 |
| July | 3.91 | 4.88 |
| August | 3.90 | 4.92 |
| September | 3.90 | 4.86 |
| October | 3.91 | 4.91 |
| November | 3.89 | 4.83 |
| December | 3.90 | 4.91 |
| **2024** | **3.91** | **4.95** |

A review of flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable raw water flowrate for Well PW2.

## Table 9. Raw Water (Well W10 Winburk) Monthly Average, Maximum Flow and Total Volume for 2024

| Raw Water Flow – Well W10 Winburk | | | | | |
|---|---|---|---|---|---|
| **Timeframe** | **Average Flow ($m^3$/day)** | **Percent of Allowable Volume** | **Maximum Flow ($m^3$/day)** | **Percent of Allowable Volume** | **Total Volume ($m^3$)** |
| January | 0.9 | 0.3% | 19.7 | 7.5% | 28.9 |
| February | 1.0 | 0.4% | 15.5 | 5.9% | 28.5 |
| March | 2.1 | 0.8% | 2.6 | 1.0% | 8.6 |
| April | 0.4 | 0.2% | 5.0 | 1.9% | 11.9 |
| May | 0.2 | 0.1% | 2.0 | 0.8% | 6.0 |
| June | 0.3 | 0.1% | 3.3 | 1.3% | 10.1 |
| July | 0.5 | 0.2% | 4.8 | 1.8% | 14.5 |
| August | 0.6 | 0.2% | 8.4 | 3.2% | 18.8 |
| September | 2.4 | 0.9% | 38.4 | 14.7% | 72.4 |
| October | 0.6 | 0.2% | 11.6 | 4.4% | 18.0 |
| November | 0.2 | 0.1% | 2.1 | 0.8% | 6.5 |
| December | 0.5 | 0.2% | 3.8 | 1.5% | 15.6 |
| **2024** | **0.7** | **0.3%** | **38.4** | **14.7%** | **239.9** |

A review of flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable daily raw water volume for Well W10 Winburk.

### Table 10. Raw Water (Well W10 Winburk) Annual and Monthly Average and Maximum Flowrates for 2024

| | Raw Water Flowrate – Well W10 Winburk | |
|---|---|---|
| **Timeframe** | **Average Flowrate (L/sec)** | **Maximum Flowrate (L/sec)** |
| January | 0.48 | 4.63 |
| February | 0.60 | 5.94 |
| March | 3.03 | 4.00 |
| April | 0.43 | 4.31 |
| May | 0.33 | 4.02 |
| June | 0.39 | 4.20 |
| July | 0.47 | 4.32 |
| August | 0.42 | 4.59 |
| September | 0.46 | 5.63 |
| October | 2.23 | 3.18 |
| November | 0.28 | 3.04 |
| December | 0.47 | 4.51 |
| **2024** | **0.50** | **5.94** |

A review of flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable raw water flowrate for Well W10 Winburk.

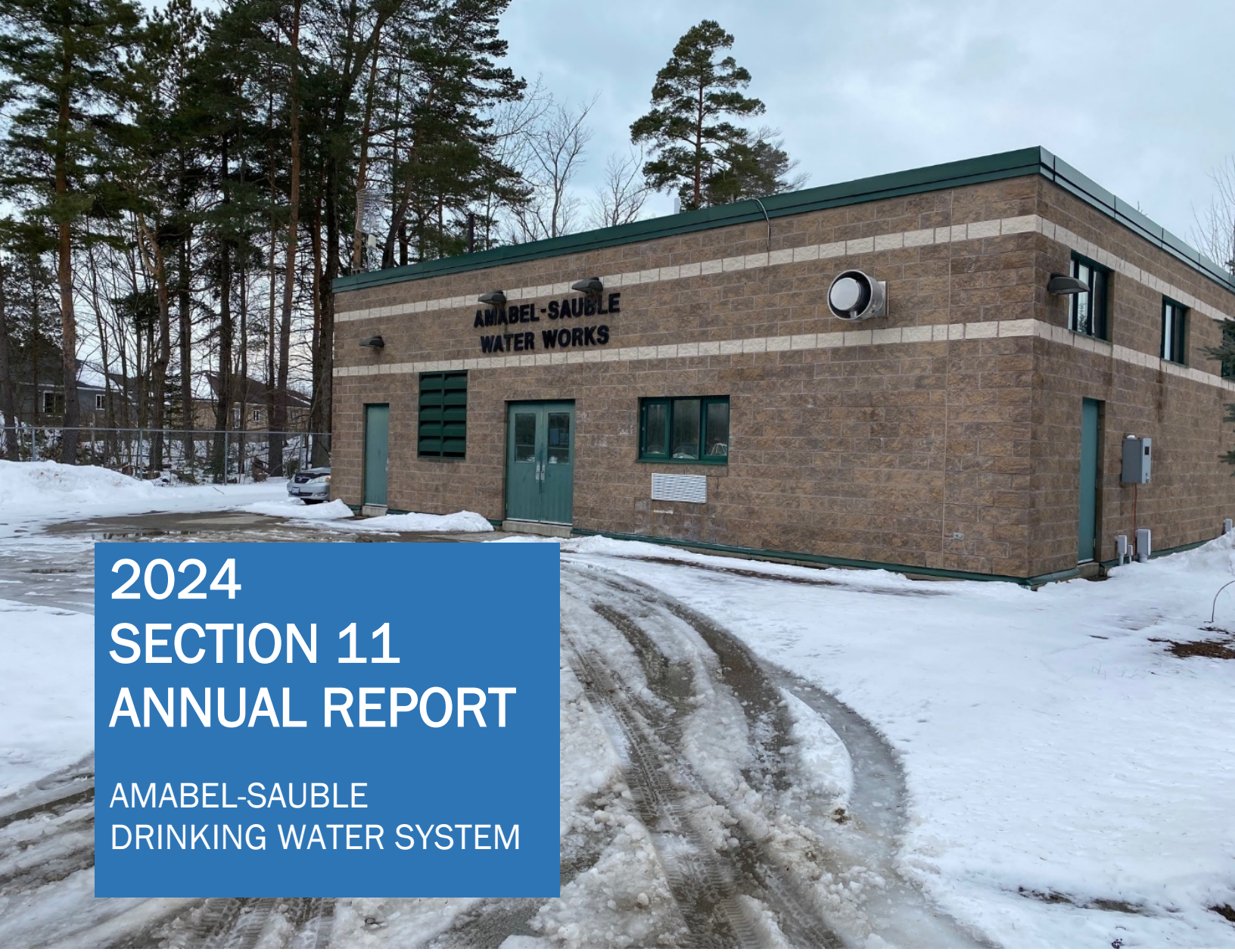
### Table 11. Raw Water Monthly Average Flow for any Combination of Well PW1 and Well PW2 for 2024

| Raw Water Average Flow – Any Combination of Well PW1 & Well PW2 | | | |
|---|---|---|---|
| **Timeframe** | **Average Flow ($m^3$/day)** | **Percent of Allowable Volume for up to 120 days** | **Percent of Allowable Volume for remaining days** |
| January | 96.2 | 14.0% | 18.0% |
| February | 94.4 | 13.7% | 17.6% |
| March | 92.4 | 13.4% | 17.2% |
| April | 101.6 | 14.8% | 19.0% |
| May | 120.7 | 17.6% | 22.5% |
| June | 143.2 | 20.8% | 26.7% |
| July | 182.4 | 26.6% | 34.1% |
| August | 222.2 | 32.3% | 41.5% |
| September | 180.4 | 26.3% | 33.7% |
| October | 168.9 | 24.6% | 31.5% |
| November | 154.0 | 22.4% | 28.7% |
| December | 128.8 | 18.7% | 24.0% |
| **2024** | **140.6** | **20.5%** | **26.2%** |

## Table 12. Raw Water Monthly Maximum Flow and Total Volume for any Combination of Well PW1 and Well PW2 for 2024

| Raw Water Maximum Flow and Total Volume – Any Combination of Well PW1 & Well PW2 | | | | | |
|---|---|---|---|---|---|
| **Timeframe** | **Maximum Flow ($m^3$/day)** | **Percent of Allowable Volume for up to 120 days** | **Percent of Allowable Volume for remaining days** | **Number of days Volume > 535.68 $m^3$/day** | **Total Volume ($m^3$)** |
| January | 149.3 | 21.7% | 27.9% | 0 | 2,983 |
| February | 129.2 | 18.8% | 24.1% | 0 | 2,736 |
| March | 147.0 | 21.4% | 27.4% | 0 | 2,863 |
| April | 187.6 | 27.3% | 35.0% | 0 | 3,049 |
| May | 219.8 | 32.0% | 41.0% | 0 | 3,743 |
| June | 282.1 | 41.1% | 52.7% | 0 | 4,296 |
| July | 312.7 | 45.5% | 58.4% | 0 | 5,654 |
| August | 350.8 | 51.1% | 65.5% | 0 | 6,888 |
| September | 358.1 | 52.1% | 66.8% | 0 | 5,413 |
| October | 257.2 | 37.4% | 48.0% | 0 | 5,237 |
| November | 246.5 | 35.9% | 46.0% | 0 | 4,622 |
| December | 229.3 | 33.4% | 42.8% | 0 | 3,994 |
| **2024** | **358.1** | **52.1%** | **66.8%** | **0** | **51,477** |

A review of flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable daily total taking from any combination of Well PW1 and/or Well PW2 for up to 120 days per year and the maximum allowable daily total taking for the remaining days of the year.




# 2024 SECTION 11 ANNUAL REPORT

## AMABEL-SAUBLE DRINKING WATER SYSTEM

For the period of:
**JANUARY 1, 2024 TO DECEMBER 31, 2024**

Prepared for the Town of South Bruce Peninsula by the Ontario Clean Water Agency

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

Town of SOUTH BRUCE PENINSULA

Drinking Water System Regulation: O. Reg 170/03
Section 11 Annual Report: January 1, 2024 to December 31, 2024
Town of South Bruce Peninsula: Amabel Sauble Drinking Water System

This report was prepared in accordance with the requirements of *O.Reg 170/03, Section 11, Annual reports* for the following system and reporting period:

| | |
|---|---|
| **Drinking Water System Number:** | 220007917 |
| **Drinking Water System Name:** | Amabel-Sauble Drinking Water System |
| **Drinking Water System Owner:** | Town of South Bruce Peninsula |
| **Drinking Water System Category:** | Large Municipal Residential |
| **Reporting Period:** | January 1, 2024 – December 31, 2024 |

### Does your Drinking Water System serve more than 10,000 people?

No

### Is your Annual Report available to the public at no charge on a website on the Internet?

Yes

*Note: If a large municipal residential system serves more than 10,000 people, the owner of the system shall ensure that a copy of every report prepared under this section is available to the public at no charge on a website on the Internet. O. Reg. 170/03, Section 11. (10)*

### Location where Summary Report required under O. Reg 170/03, Schedule 22 will be available for inspection. *(O. Reg 170/03, Section 11.(6)(5))*:

- Town of South Bruce Peninsula, 315 George Street, Wiarton ON, N0H 2T0
- https://www.southbrucepeninsula.com/en/town-hall/water-and-sewer-reports.aspx

### 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 |

### 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?

N/A

### How system users are notified that the annual report is available, and is free of charge:

| | |
|---|---|
| X | Public access/notice via the web |
| X | Public access/notice via Government Office |
| | Public access/notice via a newspaper |
| X | Public access/notice via Public Request |
| | Public access/notice via a Public Library |
| | Public access/notice via other method: _____ |

*Note: The owner of a drinking water system shall ensure that a copy of an annual report for the system is given, without charge, to every person who requests a copy. ((O.Reg 170/03, Section 11.(7)).*

## Description of Drinking Water System *(O.Reg 170/03, Section 11.(6)(a)):*

The Amabel-Sauble Well Supply Drinking Water System (DWS) is classified as a Class II Treatment and a Class II Water Distribution Subsystem. It is categorized under O. Reg 170/03 as a Large Municipal Residential Drinking Water System, servicing an approximate population of 730 persons. The Amabel Sauble Drinking Water System is owned by the Corporation of the Town of South Bruce Peninsula and operated by the Ontario Clean Water Agency (OCWA) in South Bruce Peninsula, Ontario.

The Amabel-Sauble DWS is supplied by the following deep drilled GUDI wells:

- Well PW1
- Well PW2
- Winburk Well

The treatment system consists of:

- Sodium hypochlorite oxidation/disinfection system (for iron and manganese oxidation, primary disinfection and secondary disinfection/chemical top up)
- Filtration (for iron and manganese removal)
- Cartridge filtration (as pretreatment for ultra violet disinfection)
- UV disinfection
- Pressure tanks
- Backwash wastewater holding tank for residuals management (supernatant is discharged to a ditch and settled sludge is removed)
- SCADA Instrumentation and control systems (to control process equipment function within the plant and at each of the raw water wells)
- Reservoir/clearwell (for storage and to help achieve that required contact time for disinfection)

The distribution system for the Amabel-Sauble DWS has approximately 15.6 kilometers of distribution watermains.

## List of water treatment chemicals used by the system during the reporting period *(O.Reg 170/03, Section 11.(6)(a)):*

- Sodium Hypochlorite 12%

## Significant expenses were incurred to:

| | |
|---|---|
| | Install required equipment |
| | Repair required equipment |
| | Replace required equipment |
| X | No significant expenses were incurred |

## Description of major expenses during the reporting period to install, repair or replace required equipment (O.Reg 170/03, Section 11.(6)(e)):

- No major maintenance performed

## Summary of any reports/notices submitted to the Ministry and/or Spills Action Centre in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 during the reporting period, including a description of any corrective actions taken under Schedule 17 or 18 *(O. Reg 170/03, Section 11.(6)(b),(d):*

| Incident Date (yyyy/mm/dd) | Parameter/ Notice of | Result & Unit | Summary of Reporting, Corrective Actions & Resolution |
|---|---|---|---|
| N/A | N/A | N/A | N/A |

## Table 1. Microbiological testing done under the Schedule 11 of Regulation 170/03 during this reporting period *(O.Reg 170/03, Section 11.(6)(c)).*

| Location | Number of Samples | Range of E. Coli or Fecal Results | | Range of Total Coliform Results | | Number of HPC Samples | Range of HPC Samples | |
|---|---|---|---|---|---|---|---|---|
| | | Min. | Max. | Min. | Max. | | Min. | Max. |
| **Raw Well #1**[1a] | 53 | 0 | 0 | 0 | 6 | N/A | N/A | N/A |
| **Raw Well #2**[1a] | 53 | 0 | 0 | 0 | 0 | N/A | N/A | N/A |
| **Raw Well Winburk**[1a] | 53 | 0 | 0 | 0 | 0 | N/A | N/A | N/A |
| **Treated**[1b] | 53 | 0 | 0 | 0 | 0 | 53 | 0 | 1 |
| **Distribution**[1c] | 106 | 0 | 0 | 0 | 0 | 53 | 0 | 7 |

*Note: HPC = Heterotrophic Plate Count*

*Note: Units for E.Coli or Fecal Results are cfu/100 mL, units for Total Coliform Results are cfu/100 mL, units for HPC results are cfu/1mL*

*[1a]O.Reg 170/03, Schedule 10-4. (1)(3) requires for a large municipal residential system that a water sample is taken at least once every week from the drinking water system's raw water, before any treatment is applied to the water and tested for E.Coli and total coliforms.*

*[1b]O.Reg 170/03, Schedule 10-3 requires for a large municipal residential system that a treated water sample is taken at least once every week and tested for E.Coli, total coliforms and general bacteria population expressed as colony counts on a heterotrophic count (HPC).*

*[1c]O.Reg. 170/03 Schedule 10-2.(1)(2)(3) requires that a system that serves 100,000 people or less, at least eight distribution samples, plus one additional sample for every 1,000 people served by the system to be taken every month, with at least one of the samples being taken in each week and be tested for E.Coli, Total Coliforms. At least 25 percent of the samples required must be tested for general bacteria population expressed as colony counts on heterotrophic plate count*

*(HPC). The number of people served by the system is 730 (as confirmed with the Owner on March 9, 2023), and therefore requires a minimum of eight samples per month.*

### Table 2. Operational testing done under Schedule 7 of Regulation 170/03 during the period covered by this Annual Report *(O. Reg 170/03, Section 11.(6)(c)).*

| Parameter & Location | Number of Samples | Range of Results | |
|---|---|---|---|
| | | Min. | Max. |
| Turbidity, Filter (NTU)[2a] | 8760 | 0.02 | 0.45 |
| Free Chlorine Residual, Treated Water (mg/L)[2b] | 8760 | 0.56 | 2.05 |
| Free Chlorine Residual, Distribution (mg/L)[2c] | 420 | 0.71 | 1.71 |

*Note: The number of samples used for continuous monitoring units is 8760.*

*[2a]If a drinking water system obtains water from a raw water supply that is surface water (or well water deemed as GUDI) and the system provides filtration, subsection 7-3(1) does not apply and the owner of a system shall ensure that sampling and testing for turbidity is carried out by continuous monitoring equipment on each filter effluent line (O.Reg.170/03, Schedule 7-3.(2)(b)).*

*[2b]O.Reg 170/03 Schedule 7-2.(1) requires a drinking water system that provides chlorination for primary disinfection to sample and test for free chlorine residual with continuous monitoring equipment in the treatment process at or near a location where the intended contact time has just been completed.*

*[2c]O.Reg 170/03 Schedule 7-2.(3) requires a large municipal residential system that provides secondary disinfection to take at least seven distribution samples each week and immediately tested for free chlorine residual, if the system provides chlorination and does not provide chloramination. Sampling for distribution free chlorine residual at the Amabel Sauble Drinking Water is taken twice a week.*

### Table 3. Summary of additional testing and sampling results carried out in accordance with the requirement of an approval, municipal drinking water licence or order (including OWRA) or other legal instrument. *(O. Reg 170/03, Section 11.(6)(c))*

| Legal Instrument & Issue Date (yyyy/mm/dd) | Parameter | Date Sampled | Number of Samples | Annual Average | Allowable Annual Average |
|---|---|---|---|---|---|
| 2020-03-06 MDWL 094-101 (Issue 4) | Total Suspended Solids (Filter backwash) | 2024 (Monthly) | 12 | 2.17 | 25 mg/L |
| 2020-03-06 MDWL 094-101 (Issue 4) | Total Chlorine Residual (Filter backwash) | 2024 (Monthly) | 12 | 0.01 | 0.02 mg/L |

**Table 4. Summary of Inorganic parameters tested during this reporting period or the most recent sample results *(O.Reg 170/03, Section 11.(6)(c))***

| Parameter & Location | Sample Date[4a] (yyyy/mm/dd) | Sample Result | Maximum Allowable Concentration (MAC) | Exceedance of MAC |
|---|---|---|---|---|
| Antimony: Sb (µg/L) - TW | 2024/01/09 | <MDL 0.6 | 6.0 | No |
| Arsenic: As (µg/L) - TW | 2024/01/09 | 0.5 | 10.0 | No |
| Barium: Ba (µg/L) - TW | 2024/01/09 | 317.0 | 1000.0 | No |
| Boron: B (µg/L) - TW | 2024/01/09 | 111.0 | 5000.0 | No |
| Cadmium: Cd (µg/L) - TW | 2024/01/09 | <MDL 0.003 | 5.0 | No |
| Chromium: Cr (µg/L) - TW | 2024/01/09 | 0.41 | 50.0 | No |
| Mercury: Hg (µg/L) - TW | 2024/01/09 | <MDL 0.01 | 1.0 | No |
| Selenium: Se (µg/L) - TW | 2024/01/09 | <MDL 0.04 | 50.0 | No |
| Uranium: U (µg/L) - TW | 2024/01/09 | 0.293 | 20.0 | No |
| Fluoride (mg/L) - TW | 2020/01/06[4b] | 1.35 | 1.5 | No |
| Nitrite (mg/L) - TW | 2024/01/02 | <MDL 0.003 | 1.0 | No |
| Nitrite (mg/L) - TW | 2024/04/02 | <MDL 0.003 | 1.0 | No |
| Nitrite (mg/L) - TW | 2024/07/02 | <MDL 0.003 | 1.0 | No |
| Nitrite (mg/L) - TW | 2024/10/07 | <MDL 0.003 | 1.0 | No |
| Nitrate (mg/L) - TW | 2024/01/02 | 0.020 | 10.0 | No |
| Nitrate (mg/L) - TW | 2024/04/02 | 0.018 | 10.0 | No |
| Nitrate (mg/L) - TW | 2024/07/02 | 0.019 | 10.0 | No |
| Nitrate (mg/L) - TW | 2024/10/07 | 0.019 | 10.0 | No |

*[4a]The owner of a large municipal residential system that obtains water from a raw water supply that is surface water (or well water deemed as GUDI) shall ensure that at least one water sample for inorganics is taken every 12 months (O.Reg 170/03, Schedule 13-2.(1)). The last set of samples were collected and tested in 2024, the next set of samples are scheduled to be collected and tested in 2025.*

*[4b]Fluoride is reportable every 60 months. The most recent fluoride samples were tested in 2020, the next set of samples is scheduled to be tested in 2025.*

| Parameter & Location | Sample Date (yyyy/mm/dd) | Sample Result | Aesthetic Objective (AO) | Exceedance | |
|---|---|---|---|---|---|
| | | | | AO | > 20 mg/L |
| Sodium: Na (mg/L) - TW | 2020/01/06[4b] | 14.3 | 200 | No | No |

*Note: MDL = Minimum Detection Limit, TW = Treated Water*

*Note: There is no regulatory Maximum Allowable Concentration (MAC) for Sodium. The aesthetic objective (AO) 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.*

*[4b]Sodium is reportable every 60 months. The most recent sodium samples were tested in 2020, the next set of reportable samples is scheduled to be tested in 2025.*

## Table 5: Summary of lead testing under Schedule 15.1 during this reporting period (O.Reg 170/03, Section 11.(6)(g))

| Location/Type & Parameter | Number of Samples[5a] | Range of Results | | Number of Lead Exceedances (MAC = 10 µg/L) |
|---|---|---|---|---|
| | | Min. | Max. | |
| **Period: January 1 to April 15** | | | | |
| Plumbing – Lead (µg/L)[5b] | N/A | N/A | N/A | N/A |
| Distribution – Lead (µg/L)[5c] | N/A | N/A | N/A | N/A |
| Distribution – Alkalinity (mg/L as $CaCO_3$) | 4 | 195 | 198 | N/A |
| Distribution – pH | 4 | 8.08 | 8.14 | N/A |
| **Period: June 15 to October 15** | | | | |
| Plumbing – Lead (µg/L)[5b] | N/A | N/A | N/A | N/A |
| Distribution – Lead (µg/L)[5c] | N/A | N/A | N/A | N/A |
| Distribution – Alkalinity (mg/L as $CaCO_3$) | 4 | 198 | 200 | N/A |
| Distribution – pH | 4 | 7.14 | 7.43 | N/A |
| **Period: December 15 to 31** | | | | |
| Plumbing – Lead (µg/L)[5b] | N/A | N/A | N/A | N/A |
| Distribution – Lead (µg/L)[5c] | N/A | N/A | N/A | N/A |
| Distribution – Alkalinity (mg/L as $CaCO_3$) | N/A | N/A | N/A | N/A |
| Distribution - pH | N/A | N/A | N/A | N/A |

*Note: this is required for large municipal residential systems, small municipal residential systems or non-municipal year-round residential system. (O.Reg 170/03, Section 11.(6)(g))*

*[5a]This system follows a reduced sampling schedule (O.Reg. 170/03, Section 15.1.5). The number of sampling points for the system is based on the population served by the system. The number of people served by the system is 730 (as confirmed with the Owner on March 9, 2023), and therefore requires 2 distribution sampling points per sampling period.*

*[5b]Plumbing samples are not applicable as this system qualifies for the plumbing exemption per O. Reg 170/03 Schedule 15.1-5 (9) (10).*

*[5c]This system follows a reduced sampling schedule (O.Reg 170/03, Section 15.1.5). Distribution lead samples are collected every 36 months. The most recent set of distribution lead samples were collected within the summer period of June 15, 2022 to October 15, 2022 and winter period of December 15, 2022 to April 15, 2023. The next set of distribution lead samples is scheduled to be collected within the summer period of June 15, 2025 to October 15, 2025 and winter period of December 15, 2025 to April 15, 2026.*

**Table 6: Summary of Organic parameters sampled during this reporting period or the most recent sample results *(O.Reg 170/03, Section 11.(6)(c)).***

| Parameter & Location | Sample Date[6a] (yyyy/mm/dd) | Sample Result | Maximum Allowable Concentration (MAC) | Exceedance of MAC |
|---|---|---|---|---|
| Alachlor (µg/L) - TW | 2024/01/09 | <MDL 0.02 | 5.0 | No |
| Atrazine + N-dealkylated metabolites (µg/L) - TW | 2024/01/09 | <MDL 0.01 | 5.0 | No |
| Azinphos-methyl (µg/L) - TW | 2024/01/09 | <MDL 0.05 | 20.0 | No |
| Benzene (µg/L) - TW | 2024/01/09 | <MDL 0.32 | 1.0 | No |
| Benzo(a)pyrene (µg/L) - TW | 2024/01/09 | <MDL 0.004 | 0.01 | No |
| Bromoxynil (µg/L) - TW | 2024/01/09 | <MDL 0.33 | 5.0 | No |
| Carbaryl (µg/L) - TW | 2024/01/09 | <MDL 0.05 | 90.0 | No |
| Carbofuran (µg/L) - TW | 2024/01/09 | <MDL 0.01 | 90.0 | No |
| Carbon Tetrachloride (µg/L) - TW | 2024/01/09 | <MDL 0.17 | 2.0 | No |
| Chlorpyrifos (µg/L) - TW | 2024/01/09 | <MDL 0.02 | 90.0 | No |
| Diazinon (µg/L) - TW | 2024/01/09 | <MDL 0.02 | 20.0 | No |
| Dicamba (µg/L) - TW | 2024/01/09 | <MDL 0.2 | 120.0 | No |
| 1,2-Dichlorobenzene (µg/L) - TW | 2024/01/09 | <MDL 0.41 | 200.0 | No |
| 1,4-Dichlorobenzene (µg/L) - TW | 2024/01/09 | <MDL 0.36 | 5.0 | No |
| 1,2-Dichloroethane (µg/L) - TW | 2024/01/09 | <MDL 0.35 | 5.0 | No |
| 1,1-Dichloroethylene (µg/L) - TW | 2024/01/09 | <MDL 0.33 | 14.0 | No |
| Dichloromethane (Methylene Chloride) (µg/L) - TW | 2024/01/09 | <MDL 0.35 | 50.0 | No |
| 2,4-Dichlorophenol (µg/L) - TW | 2024/01/09 | <MDL 0.15 | 900.0 | No |
| 2,4-Dichlorophenoxy acetic acid (2,4-D) (µg/L) - TW | 2024/01/09 | <MDL 0.19 | 100.0 | No |
| Diclofop-methyl (µg/L) - TW | 2024/01/09 | <MDL 0.4 | 9.0 | No |
| Dimethoate (µg/L) - TW | 2024/01/09 | <MDL 0.06 | 20.0 | No |
| Diquat (µg/L) - TW | 2024/01/09 | <MDL 1.0 | 70.0 | No |
| Diuron (µg/L) - TW | 2024/01/09 | <MDL 0.03 | 150.0 | No |
| Glyphosate (µg/L) - TW | 2024/01/09 | <MDL 1.0 | 280.0 | No |
| Malathion (µg/L) - TW | 2024/01/09 | <MDL 0.02 | 190.0 | No |
| Metolachlor (µg/L) - TW | 2024/01/09 | <MDL 0.01 | 50.0 | No |

| **Parameter & Location** | **Sample Date[6a]** (yyyy/mm/dd) | **Sample Result** | **Maximum Allowable Concentration (MAC)** | **Exceedance of MAC** |
|---|---|---|---|---|
| Metribuzin (µg/L) - TW | 2024/01/09 | <MDL 0.02 | 80.0 | No |
| Monochlorobenzene (Chlorobenzene) (µg/L) - TW | 2024/01/09 | <MDL 0.3 | 80.0 | No |
| Paraquat (µg/L) - TW | 2024/01/09 | <MDL 1.0 | 10.0 | No |
| PCB (µg/L) - TW | 2024/01/09 | <MDL 0.04 | 3.0 | No |
| Pentachlorophenol (µg/L) - TW | 2024/01/09 | <MDL 0.15 | 60.0 | No |
| Phorate (µg/L) - TW | 2024/01/09 | <MDL 0.01 | 2.0 | No |
| Picloram (µg/L) - TW | 2024/01/09 | <MDL 1.0 | 190.0 | No |
| Prometryne (µg/L) - TW | 2024/01/09 | <MDL 0.03 | 1.0 | No |
| Simazine (µg/L) - TW | 2024/01/09 | <MDL 0.01 | 10.0 | No |
| Terbufos (µg/L) - TW | 2024/01/09 | <MDL 0.01 | 1.0 | No |
| Tetrachloroethylene (µg/L) - TW | 2024/01/09 | <MDL 0.35 | 10.0 | No |
| 2,3,4,6-Tetrachlorophenol (µg/L) - TW | 2024/01/09 | <MDL 0.2 | 100.0 | No |
| Triallate (µg/L) - TW | 2024/01/09 | <MDL 0.01 | 230.0 | No |
| Trichloroethylene (µg/L) - TW | 2024/01/09 | <MDL 0.44 | 5.0 | No |
| 2,4,6-Trichlorophenol (µg/L) - TW | 2024/01/09 | <MDL 0.25 | 5.0 | No |
| 2-methyl-4-chlorophenoxyacetic acid (MCPA) (µg/L) – TW | 2024/01/09 | <MDL 0.12 | 100.0 | No |
| Trifluralin (µg/L) - TW | 2024/01/09 | <MDL 0.02 | 45.0 | No |
| Vinyl Chloride (µg/L) - TW | 2024/01/09 | <MDL 0.17 | 1.0 | No |
| Trihalomethane: Total (µg/L) Annual Average - DW | 2024 (Quarterly) | 34.5 | 100.0 | No |
| HAA Total (µg/L) Annual Average - DW | 2024 (Quarterly) | 7.0 | 80.0 | No |

*Note: MDL = Minimum Detection Limit, MAC = Maximum Allowable Concentration, TW = Treated Water, DW = Distribution Water*

*[6a]The owner of a large municipal residential system that obtains water from a raw water supply that is surface water (or well water deemed as GUDI) shall ensure that at least one water sample for organics is taken every 12 months (O.Reg 170/03, Schedule 13-4.(1)). The last set of samples were collected and tested in 2024, the next set of samples are scheduled to be collected and tested in 2025.*

**Table 7: List of Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards for the reporting period.**

| Parameter & Location | Sample Date (yyyy/mm/dd) | Sample Result |
|---|---|---|
| N/A | N/A | N/A |