# 2023 SECTION 22 SUMMARY REPORT

FOREMAN DRINKING WATER SYSTEM

For the period of: JANUARY 1, 2023 TO DECEMBER 31, 2023

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





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

Drinking-Water System Number: Drinking-Water System Name: Drinking-Water System Owner: Drinking-Water System Category: Period being reported:

| 220007711                           |
|-------------------------------------|
| Foreman Drinking Water System       |
| Town of South Bruce Peninsula       |
| Small Municipal Residential         |
| January 1, 2023 – December 31, 2023 |

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

A Ministry of Environment, Conservation and Parks (MECP) Drinking Water System Inspection was conducted on August 31, 2023 for the period covering September 21, 2022 to August 31, 2023. On November 6, 2023 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 2022/2023MECP Inspection Report

| Non-Compliance(s) | Duration | <b>Required Actions &amp; Corrective Actions</b> |
|-------------------|----------|--|
| N/A               | N/A      | N/A  |

The following table (Table 2) is a summary of any incidents that the Operating Authority interpreted as instances where any requirements of the Act, the regulations, the system's approval, drinking water works permit (DWWP), 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-compliances are noted in the MECP Inspection Report and included in Table 1.

| 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 Foreman 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):  | 094-104 (Issue Number: 4) |
|---|---------------------------|
| Allowable Rated Capacity:                 | 165 m <sup>3</sup> /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. | <b>Treated Water</b> | Annual and    | Monthly   | Average a  | and | Maximum | Flows | with |
|----------|----------------------|---------------|-----------|------------|-----|---------|-------|------|
| Comparis | son to Rated Ca      | pacity and To | otal Volu | me for 202 | 3   |         |       |      |

| Treated Water Flow |                          |                                 |  |                                 |                      |
|--------------------|--------------------------|---------------------------------|--|---------------------------------|----------------------|
| Timeframe          | Average Flow<br>(m³/day) | Percent of<br>Rated<br>Capacity | Maximum<br>Flow<br>(m <sup>3</sup> /day) | Percent of<br>Rated<br>Capacity | Total<br>Volume (m³) |
| January            | 2.2                      | 1.3%                            | 11.2                                     | 6.8%                            | 67.9                 |
| February           | 8.2                      | 5.0%                            | 80.8 <sup>3a</sup>                       | 49.0%                           | 228.5                |
| March              | 1.8                      | 1.1%                            | 3.1                                      | 1.9%                            | 55.0                 |
| April              | 2.2                      | 1.3%                            | 4.4                                      | 2.7%                            | 65.9                 |
| May                | 3.5                      | 2.1%                            | 10.6                                     | 6.4%                            | 107.8                |
| June               | 4.3                      | 2.6%                            | 13.2                                     | 8.0%                            | 127.8                |
| July               | 5.9                      | 3.6%                            | 15.5                                     | 9.4%                            | 182.4                |
| August             | 3.8                      | 2.3%                            | 9.4                                      | 5.7%                            | 118.3                |
| September          | 4.3                      | 2.6%                            | 14.5                                     | 8.8%                            | 129.9                |
| October            | 2.1                      | 1.3%                            | 5.6                                      | 3.4%                            | 65.4                 |
| November           | 1.4                      | 0.8%                            | 2.7                                      | 1.6%                            | 41.2                 |
| December           | 1.7                      | 1.0%                            | 9.0                                      | 5.5%                            | 53.0                 |
| 2023               | 3.4                      | 2.1%                            | 80.8 <sup>3a</sup>                       | 49.0%                           | 1,243                |

<sup>3a</sup>Maximum daily flows in February were a result of a leak in the distribution system on February 21-22, 2023.

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. | <b>Treated Water</b> | Annual and | I Monthly | Average | and Maximum | Flowrates for |
|----------|----------------------|------------|-----------|---------|-------------|---------------|
| 2023     |                      |            |           |         |             |               |

| Treated Water Flowrate |                             |                             |  |  |
|------------------------|-----------------------------|-----------------------------|--|--|
| Timeframe              | Average Flowrate<br>(L/sec) | Maximum Flowrate<br>(L/sec) |  |  |
| January                | 0.03                        | 3.25                        |  |  |
| February               | 0.09                        | 3.43                        |  |  |
| March                  | 0.02                        | 2.55                        |  |  |
| April                  | 0.03                        | 2.27                        |  |  |
| May                    | 0.04                        | 2.03                        |  |  |
| June                   | 0.05                        | 2.70                        |  |  |
| July                   | 0.07                        | 2.80                        |  |  |
| August                 | 0.06                        | 3.25                        |  |  |
| September              | 0.08                        | 2.47                        |  |  |
| October                | 0.08                        | 2.40                        |  |  |
| November               | 0.09                        | 2.40                        |  |  |
| December               | 0.06                        | 2.50                        |  |  |
| 2023                   | 0.06                        | 3.43                        |  |  |

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 Table 6.

#### 2.2 Raw Water

| Permit to Take Water Number:                         | 0725-BTFKTF                |
|--|----------------------------|
| Allowable Maximum Raw Water Volume – Foreman Well:   | 163.44 m <sup>3</sup> /day |
| Allowable Maximum Raw Water Flowrate – Foreman Well: | 114 L/min (1.9 L/sec)      |

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 (Foreman Well) Monthly Average, Maximum Flow and TotalVolume for 2023

|           | Raw Water Flow – Foreman Well            |                                   |  |                                   |                                   |  |
|-----------|--|-----------------------------------|--|-----------------------------------|-----------------------------------|--|
| Timeframe | Average<br>Flow<br>(m <sup>3</sup> /day) | Percent of<br>Allowable<br>Volume | Maximum<br>Flow<br>(m <sup>3</sup> /day) | Percent of<br>Allowable<br>Volume | Total<br>Volume (m <sup>3</sup> ) |  |
| January   | 15.7                                     | 9.6%                              | 22.4                                     | 13.7%                             | 141.5                             |  |
| February  | 27.4                                     | 16.8%                             | 77.4 <sup>5a</sup>                       | 47.4%                             | 274.5                             |  |
| March     | 18.7                                     | 11.4%                             | 24.4                                     | 14.9%                             | 112.1                             |  |
| April     | 15.7                                     | 9.6%                              | 20.1                                     | 12.3%                             | 125.6                             |  |
| May       | 14.2                                     | 8.7%                              | 23.1                                     | 14.1%                             | 171.0                             |  |
| June      | 15.0                                     | 9.2%                              | 22.3                                     | 13.6%                             | 180.5                             |  |
| July      | 19.3                                     | 11.8%                             | 37.0                                     | 22.6%                             | 289.0                             |  |
| August    | 14.4                                     | 8.8%                              | 21.3                                     | 13.0%                             | 173.1                             |  |
| September | 16.8                                     | 10.3%                             | 25.9                                     | 15.8%                             | 201.8                             |  |
| October   | 13.2                                     | 8.1%                              | 20.4                                     | 12.5%                             | 118.8                             |  |
| November  | 15.3                                     | 9.4%                              | 20.2                                     | 12.4%                             | 107.1                             |  |
| December  | 13.5                                     | 8.3%                              | 21.2                                     | 13.0%                             | 121.2                             |  |
| 2023      | 16.7                                     | 10.2%                             | 77.4 <sup>5a</sup>                       | 47.4%                             | 2,016                             |  |

<sup>5</sup><sup>a</sup>Maximum daily flows in February were a result of a leak in the distribution system on February 21-22, 2023.

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 the Foreman Well.

| Table 6. Raw Water (Foreman Well) Annual an | nd Monthly Average and Maximum |
|---|--------------------------------|
| Flowrates for 2023                          |                                |

| Ra        | Raw Water Flowrate – Foreman Well |                             |  |  |  |  |  |  |
|-----------|-----------------------------------|-----------------------------|--|--|--|--|--|--|
| Timeframe | Average Flowrate<br>(L/sec)       | Maximum Flowrate<br>(L/sec) |  |  |  |  |  |  |
| January   | 1.68                              | 1.80                        |  |  |  |  |  |  |
| February  | 1.56                              | 1.80                        |  |  |  |  |  |  |
| March     | 1.55                              | 1.80                        |  |  |  |  |  |  |
| April     | 1.64                              | 1.80                        |  |  |  |  |  |  |
| May       | 1.39                              | 1.70                        |  |  |  |  |  |  |
| June      | 1.57                              | 1.71                        |  |  |  |  |  |  |
| July      | 1.68                              | 1.88                        |  |  |  |  |  |  |
| August    | 1.55                              | 1.90                        |  |  |  |  |  |  |
| September | 1.66                              | 1.89                        |  |  |  |  |  |  |
| October   | 1.70                              | 1.90                        |  |  |  |  |  |  |
| November  | 1.76                              | 1.90                        |  |  |  |  |  |  |
| December  | 1.67                              | 1.84                        |  |  |  |  |  |  |
| 2023      | 1.61                              | 1.90                        |  |  |  |  |  |  |

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

# 2023 SECTION 11 ANNUAL REPORT

FOREMAN DRINKING WATER SYSTEM

> For the period of: JANUARY 1, 2023 TO DECEMBER 31, 2023

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





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

| Drinking Water System Number:   | 220007711                           |
|---------------------------------|-------------------------------------|
| Drinking Water System Name:     | Foreman Drinking Water System       |
| Drinking Water System Owner:    | Town of South Bruce Peninsula       |
| Drinking Water System Category: | Small Municipal Residential         |
| Reporting Period:               | January 1, 2023 – December 31, 2023 |

#### 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, NOH 2TO
- <u>https://www.southbrucepeninsula.com/en/town-hall/water-and-sewer-reports.aspx</u>

#### 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 Foreman Drinking Water System is classified as a Class II Water Treatment and Class I Water Distribution System and categorized as a Small Municipal Residential Drinking Water System, servicing an approximate population of 36 persons. The Foreman Drinking Water System is owned by the Corporation of the Municipality of South Bruce Peninsula and operated by the Ontario Clean Water Agency (OCWA) in South Bruce Peninsula, Ontario.

The Foreman Water Works Drinking-Water System is supplied by a deep drilled GUDI well. The well pumphouse houses the treatment and control facilities which include:

- Iron/Manganese Removal (potassium permanganate system/greensand filters)
- Cartridge Filter System (to assist with UV disinfection)
- Ultraviolet Disinfection System
- Chlorination System (sodium hypochlorite, pre-chlorination and post chlorination)
- Clearwell/Storage Tank (for achieving CT, the water is also used to backwash the greensand filters)
- Filter Backwash Tank (clarified supernatant discharged by gravity to an existing ditch)
- Hydro pneumatic Tanks (to maintain pressure for highlift discharge and for the greensand filters)
- Diesel generator set
- Programmable logic controller and associated SCADA system (for control of the water treatment plant)

# List of water treatment chemicals used by the system during the reporting period (0.Reg 170/03, Section 11.(6)(a)):

- Sodium Hypochlorite 12%
- Potassium Permanganate

#### Significant expenses were incurred to:

- X Install required equipment
- X Repair required equipment
- X Replace required equipment
  - 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)):

- Replacement inline turbidity analyzer
- Reservoir inspection and cleaning

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<br>Date<br>(yyyy/mm/dd) | Parameter/<br>Notice of | Result<br>& Unit | Summary of Reporting, Corrective Actions &<br>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<br>of | •    | f E. Coli<br>Results | Range of Total<br>Coliform Results |      | Number<br>of HPC | Range<br>Sam | of HPC<br>ples |
|----------------------------------|--------------|------|----------------------|------------------------------------|------|------------------|--------------|----------------|
|                                  | Samples      | Min. | Max.                 | Min.                               | Max. | Samples          | Min.         | Max.           |
| Raw – Well<br>WLP8 <sup>1a</sup> | 12           | 0    | 0                    | 0                                  | 33   | N/A              | N/A          | N/A            |
| Distribution <sup>1b</sup>       | 52           | 0    | 0                    | 0                                  | 0    | 52               | 0            | 9              |

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

<sup>1a</sup>O.Reg 170/03, Schedule 11-3. (1)(3) requires for a small municipal residential system that a water sample is taken at least once every month from the drinking water system's raw water, before any treatment is applied to the water and tested for E.Coli and total coliforms.

<sup>1b</sup>O.Reg. 170/03 Schedule 11-2.(1)(2)(3) requires that at least one distribution sample is taken every two weeks, if the system provides treatment equipment in accordance with Schedule 1 or 2 and the equipment is operated in accordance with that Schedule; or at least one distribution sample is taken every week, if clause (a) does not apply and be tested for E.Coli, Total Coliforms and if section 1-5 of Schedule 1 or subsection 2-5 (1) of Schedule 2 applies to the system, general bacteria population expressed as colony counts on a heterotrophic plate count. As a best practice, OCWA takes weekly distribution samples at Foreman DWS.

# 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)).*

| Devenuetor 9 Location                                     | Number of | Range of Results   |      |  |
|---|-----------|--------------------|------|--|
| Parameter & Location                                      | Samples   | Min.               | Max. |  |
| Turbidity, Filter (NTU) <sup>2a</sup>                     | 8760      | 0.00               | 0.27 |  |
| Free Chlorine Residual, Treated (mg/L) <sup>2b</sup>      | 8760      | 0.49 <sup>2c</sup> | 2.00 |  |
| Free Chlorine Residual, Distribution (mg/L) <sup>2d</sup> | 107       | 0.85               | 2.00 |  |

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

<sup>2a</sup>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))

<sup>2b</sup>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.

<sup>2c</sup>Low chlorine event on January 17, 2023. CT met, no adverse conditions.

<sup>2d</sup>O.Reg 170/03 Schedule 7-2.(5) requires a small municipal residential system that provides secondary disinfection to take at least two 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 Foreman 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<br>& Issue Date<br>(yyyy/mm/dd) | Parameter                                    | Date<br>Sampled   | Number<br>of<br>Samples | Annual<br>Average | Allowable<br>Annual<br>Average |
|--|--|-------------------|-------------------------|-------------------|--------------------------------|
| 2020-03-06<br>MDWL 094-104<br>(Issue 4)          | Total Suspended Solids<br>(Filter backwash)  | 2023<br>(Monthly) | 12                      | 2.25              | 25 mg/L                        |
| 2020-03-06<br>MDWL 094-104<br>(Issue 4)          | Total Chlorine Residual<br>(Filter backwash) | 2023<br>(Monthly) | 12                      | 0.017             | 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<br>Date <sup>4a</sup><br>(yyyy/mm/dd) | Sample<br>Result                                   | Maximum<br>Allowable<br>Concentration<br>(MAC) | Exceedance<br>of MAC |
|--------------------------|--|--|--|----------------------|
| Antimony: Sb (µg/L) - TW | 2021/01/05                                   | <mdl 0.9<="" td=""><td>6.0</td><td>No</td></mdl>   | 6.0  | No                   |
| Arsenic: As (μg/L) - TW  | 2021/01/05                                   | <mdl 0.2<="" td=""><td>10.0</td><td>No</td></mdl>  | 10.0   | No                   |
| Barium: Ba (µg/L) - TW   | 2021/01/05                                   | 16.7   | 1000.0   | No                   |
| Boron: B (µg/L) - TW     | 2021/01/05                                   | 79.0   | 5000.0   | No                   |
| Cadmium: Cd (µg/L) - TW  | 2021/01/05                                   | <mdl 0.003<="" td=""><td>5.0</td><td>No</td></mdl> | 5.0  | No                   |
| Chromium: Cr (μg/L) - TW | 2021/01/05                                   | 0.38   | 50.0   | No                   |

| Mercury: Hg (µg/L) - TW  | 2021/01/05               | <mdl 0.01<="" td=""><td>1.0</td><td>No</td></mdl>  | 1.0  | No |
|--------------------------|--------------------------|--|------|----|
| Selenium: Se (µg/L) - TW | 2021/01/05               | <mdl 0.04<="" td=""><td>50.0</td><td>No</td></mdl> | 50.0 | No |
| Uranium: U (µg/L) - TW   | 2021/01/05               | 0.064  | 20.0 | No |
| Fluoride (mg/L) - TW     | 2022/01/04 <sup>4b</sup> | 1.21   | 1.5  | No |
| Nitrite (mg/L) - TW      | 2023/01/09               | <mdl 0.003<="" td=""><td>1.0</td><td>No</td></mdl> | 1.0  | No |
| Nitrite (mg/L) - TW      | 2023/04/03               | <mdl 0.003<="" td=""><td>1.0</td><td>No</td></mdl> | 1.0  | No |
| Nitrite (mg/L) - TW      | 2023/07/04               | <mdl 0.003<="" td=""><td>1.0</td><td>No</td></mdl> | 1.0  | No |
| Nitrite (mg/L) - TW      | 2023/10/02               | <mdl 0.003<="" td=""><td>1.0</td><td>No</td></mdl> | 1.0  | No |
| Nitrate (mg/L) - TW      | 2023/01/09               | 0.010  | 10.0 | No |
| Nitrate (mg/L) - TW      | 2023/04/03               | 0.009  | 10.0 | No |
| Nitrate (mg/L) - TW      | 2023/07/04               | 0.008  | 10.0 | No |
| Nitrate (mg/L) - TW      | 2023/10/02               | 0.007  | 10.0 | No |

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

<sup>4a</sup>The owner of a small municipal residential system shall ensure that at least one water sample for inorganics is taken every 60 months (O.Reg 170/03, Schedule 13-2.(3). The last set of samples were collected and tested in 2021, the next set of samples are scheduled to be collected and tested in 2026.

<sup>4b</sup>Fluoride is reportable every 60 months. The most recent Fluoride samples were tested in 2022, the next set of samples is scheduled to be tested in 2027.

| Deremeter 9 Location   | Sample Date              | Sample Aesthetic |                | Exceedance |           |
|------------------------|--------------------------|------------------|----------------|------------|-----------|
| Parameter & Location   | (yyyy/mm/dd)             | Result           | Objective (AO) | AO         | > 20 mg/L |
| Sodium: Na (mg/L) - TW | 2022/01/04 <sup>4c</sup> | 16.5             | 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.

<sup>4</sup>cSodium is reportable every 60 months. The most recent Sodium samples were tested in 2022, the next set of samples is scheduled to be tested in 2027.

# 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<br>Samples <sup>5a</sup> | Range of<br>Results |      | Number of Lead<br>Exceedances |  |  |
|--|------------------------------------|---------------------|------|-------------------------------|--|--|
|  | Samples                            | Min.                | Max. | (MAC = 10 μ/L)                |  |  |
| Period: Ja   | Period: January 1 to April 15      |                     |      |                               |  |  |
| Plumbing – Lead (µg/L) <sup>5b</sup>                   | N/A                                | N/A                 | N/A  | N/A                           |  |  |
| Distribution – Lead $(\mu g/L)^{5c}$                   | N/A                                | N/A                 | N/A  | N/A                           |  |  |
| Distribution – Alkalinity (mg/L as CaCO <sub>3</sub> ) | 1                                  | 220                 | 220  | N/A                           |  |  |

| Distribution – pH                                      | 1               | 8.22 | 8.22 | N/A |  |  |
|--|-----------------|------|------|-----|--|--|
| Period: June 15 to October 15                          |                 |      |      |     |  |  |
| Plumbing – Lead (µg/L) <sup>5b</sup>                   | N/A             | N/A  | N/A  | N/A |  |  |
| Distribution – Lead (µg/L) <sup>5c</sup>               | N/A             | N/A  | N/A  | N/A |  |  |
| Distribution – Alkalinity (mg/L as CaCO <sub>3</sub> ) | 1               | 215  | 215  | N/A |  |  |
| Distribution – pH                                      | 1               | 8.04 | 8.04 | N/A |  |  |
| Period: D  | ecember 15 to 3 | 1    |      |     |  |  |
| Plumbing – Lead (µg/L) <sup>5b</sup>                   | N/A             | N/A  | N/A  | N/A |  |  |
| Distribution – Lead (µg/L) <sup>5c</sup>               | N/A             | N/A  | N/A  | N/A |  |  |
| Distribution – Alkalinity (mg/L as CaCO <sub>3</sub> ) | 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))

<sup>5a</sup>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 36 (as confirmed with the Owner on March 9, 2023), and therefore requires 1 distribution sampling point per sampling period.

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

<sup>5c</sup>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 winter period of December 15, 2020 to April 15, 2021 and summer period of June 15, 2021 to October 15, 2021. The next set of distribution lead samples is scheduled to be collected within the winter period of December 15, 2023 to April 15, 2024 and summer period of June 15, 2024 to October 15, 2024.

| Parameter & Location                                | Sample Date <sup>6a</sup><br>(yyyy/mm/dd) | Sample<br>Result                                    | Maximum<br>Allowable<br>Concentration<br>(MAC) | Exceedance<br>of MAC |
|---|---|---|--|----------------------|
| Alachlor (µg/L) - TW                                | 2021/01/05                                | <mdl 0.02<="" td=""><td>5.0</td><td>No</td></mdl>   | 5.0  | No                   |
| Atrazine + N-dealkylated<br>metabolites (µg/L) - TW | 2021/01/05                                | <mdl 0.01<="" td=""><td>5.0</td><td>No</td></mdl>   | 5.0  | No                   |
| Azinphos-methyl (µg/L) - TW                         | 2021/01/05                                | <mdl 0.05<="" td=""><td>20.0</td><td>No</td></mdl>  | 20.0   | No                   |
| Benzene (µg/L) - TW                                 | 2021/01/05                                | <mdl 0.32<="" td=""><td>1.0</td><td>No</td></mdl>   | 1.0  | No                   |
| Benzo(a)pyrene (μg/L) - TW                          | 2021/01/05                                | <mdl 0.004<="" td=""><td>0.01</td><td>No</td></mdl> | 0.01   | No                   |
| Bromoxynil (µg/L) - TW                              | 2021/01/05                                | <mdl 0.33<="" td=""><td>5.0</td><td>No</td></mdl>   | 5.0  | No                   |
| Carbaryl (µg/L) - TW                                | 2021/01/05                                | <mdl 0.05<="" td=""><td>90.0</td><td>No</td></mdl>  | 90.0   | No                   |
| Carbofuran (µg/L) - TW                              | 2021/01/05                                | <mdl 0.01<="" td=""><td>90.0</td><td>No</td></mdl>  | 90.0   | No                   |

## 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 <sup>6a</sup><br>(yyyy/mm/dd) | Sample<br>Result                                    | Maximum<br>Allowable<br>Concentration<br>(MAC) | Exceedance<br>of MAC |
|--|---|---|--|----------------------|
| Carbon Tetrachloride (µg/L) -<br>TW                    | 2021/01/05                                | <mdl 0.17<="" td=""><td>2.0</td><td>No</td></mdl>   | 2.0  | No                   |
| Chlorpyrifos (µg/L) - TW                               | 2021/01/05                                | <mdl 0.02<="" td=""><td>90.0</td><td>No</td></mdl>  | 90.0   | No                   |
| Diazinon (µg/L) - TW                                   | 2021/01/05                                | <mdl 0.02<="" td=""><td>20.0</td><td>No</td></mdl>  | 20.0   | No                   |
| Dicamba (µg/L) - TW                                    | 2021/01/05                                | <mdl 0.2<="" td=""><td>120.0</td><td>No</td></mdl>  | 120.0  | No                   |
| 1,2-Dichlorobenzene (μg/L) -<br>TW                     | 2021/01/05                                | <mdl 0.41<="" td=""><td>200.0</td><td>No</td></mdl> | 200.0  | No                   |
| 1,4-Dichlorobenzene (μg/L) -<br>TW                     | 2021/01/05                                | <mdl 0.36<="" td=""><td>5.0</td><td>No</td></mdl>   | 5.0  | No                   |
| 1,2-Dichloroethane (μg/L) -<br>TW                      | 2021/01/05                                | <mdl 0.35<="" td=""><td>5.0</td><td>No</td></mdl>   | 5.0  | No                   |
| 1,1-Dichloroethylene (μg/L) -<br>TW                    | 2021/01/05                                | <mdl 0.33<="" td=""><td>14.0</td><td>No</td></mdl>  | 14.0   | No                   |
| Dichloromethane (Methylene<br>Chloride) (µg/L) - TW    | 2021/01/05                                | <mdl 0.35<="" td=""><td>50.0</td><td>No</td></mdl>  | 50.0   | No                   |
| 2,4-Dichlorophenol (μg/L) -<br>TW                      | 2021/01/05                                | <mdl 0.15<="" td=""><td>900.0</td><td>No</td></mdl> | 900.0  | No                   |
| 2,4-Dichlorophenoxy acetic<br>acid (2,4-D) (µg/L) - TW | 2021/01/05                                | <mdl 0.19<="" td=""><td>100.0</td><td>No</td></mdl> | 100.0  | No                   |
| Diclofop-methyl (µg/L) - TW                            | 2021/01/05                                | <mdl 0.4<="" td=""><td>9.0</td><td>No</td></mdl>    | 9.0  | No                   |
| Dimethoate (µg/L) - TW                                 | 2021/01/05                                | <mdl 0.06<="" td=""><td>20.0</td><td>No</td></mdl>  | 20.0   | No                   |
| Diquat (µg/L) - TW                                     | 2021/01/05                                | <mdl 1.0<="" td=""><td>70.0</td><td>No</td></mdl>   | 70.0   | No                   |
| Diuron (μg/L) - TW                                     | 2021/01/05                                | <mdl 0.03<="" td=""><td>150.0</td><td>No</td></mdl> | 150.0  | No                   |
| Glyphosate (µg/L) - TW                                 | 2021/01/05                                | <mdl 1.0<="" td=""><td>280.0</td><td>No</td></mdl>  | 280.0  | No                   |
| Malathion (μg/L) - TW                                  | 2021/01/05                                | <mdl 0.02<="" td=""><td>190.0</td><td>No</td></mdl> | 190.0  | No                   |
| Metolachlor (µg/L) - TW                                | 2021/01/05                                | <mdl 0.01<="" td=""><td>50.0</td><td>No</td></mdl>  | 50.0   | No                   |
| Metribuzin (μg/L) - TW                                 | 2021/01/05                                | <mdl 0.02<="" td=""><td>80.0</td><td>No</td></mdl>  | 80.0   | No                   |
| Monochlorobenzene<br>(Chlorobenzene) (μg/L) - TW       | 2021/01/05                                | <mdl 0.3<="" td=""><td>80.0</td><td>No</td></mdl>   | 80.0   | No                   |
| Paraquat (µg/L) - TW                                   | 2021/01/05                                | <mdl 1.0<="" td=""><td>10.0</td><td>No</td></mdl>   | 10.0   | No                   |
| PCB (µg/L) - TW  | 2021/01/05                                | <mdl 0.04<="" td=""><td>3.0</td><td>No</td></mdl>   | 3.0  | No                   |
| Pentachlorophenol (µg/L) -<br>TW                       | 2021/01/05                                | <mdl 0.15<="" td=""><td>60.0</td><td>No</td></mdl>  | 60.0   | No                   |
| Phorate (µg/L) - TW                                    | 2021/01/05                                | <mdl 0.01<="" td=""><td>2.0</td><td>No</td></mdl>   | 2.0  | No                   |
| Picloram (µg/L) - TW                                   | 2021/01/05                                | <mdl 1.0<="" td=""><td>190.0</td><td>No</td></mdl>  | 190.0  | No                   |
| Prometryne (µg/L) - TW                                 | 2021/01/05                                | <mdl 0.03<="" td=""><td>1.0</td><td>No</td></mdl>   | 1.0  | No                   |
| Simazine (µg/L) - TW                                   | 2021/01/05                                | <mdl 0.01<="" td=""><td>10.0</td><td>No</td></mdl>  | 10.0   | No                   |

| Parameter & Location  | Sample Date <sup>6a</sup><br>(yyyy/mm/dd) | Sample<br>Result                                    | Maximum<br>Allowable<br>Concentration<br>(MAC) | Exceedance<br>of MAC |
|---|---|---|--|----------------------|
| Terbufos (µg/L) - TW  | 2021/01/05                                | <mdl 0.01<="" td=""><td>1.0</td><td>No</td></mdl>   | 1.0  | No                   |
| Tetrachloroethylene (μg/L) -<br>TW                            | 2021/01/05                                | <mdl 0.35<="" td=""><td>10.0</td><td>No</td></mdl>  | 10.0   | No                   |
| 2,3,4,6-Tetrachlorophenol<br>(μg/L) - TW                      | 2021/01/05                                | <mdl 0.2<="" td=""><td>100.0</td><td>No</td></mdl>  | 100.0  | No                   |
| Triallate (μg/L) - TW   | 2021/01/05                                | <mdl 0.01<="" td=""><td>230.0</td><td>No</td></mdl> | 230.0  | No                   |
| Trichloroethylene (µg/L) - TW                                 | 2021/01/05                                | <mdl 0.44<="" td=""><td>5.0</td><td>No</td></mdl>   | 5.0  | No                   |
| 2,4,6-Trichlorophenol (μg/L) -<br>TW                          | 2021/01/05                                | <mdl 0.25<="" td=""><td>5.0</td><td>No</td></mdl>   | 5.0  | No                   |
| 2-methyl-4-<br>chlorophenoxyacetic acid<br>(MCPA) (μg/L) - TW | 2021/01/05                                | <mdl 0.12<="" td=""><td>100.0</td><td>No</td></mdl> | 100.0  | No                   |
| Trifluralin (μg/L) - TW                                       | 2021/01/05                                | <mdl 0.02<="" td=""><td>45.0</td><td>No</td></mdl>  | 45.0   | No                   |
| Vinyl Chloride (µg/L) - TW                                    | 2021/01/05                                | <mdl 0.17<="" td=""><td>1.0</td><td>No</td></mdl>   | 1.0  | No                   |
|   |   |   |  |                      |
| Trihalomethane: Total (μg/L)<br>Annual Average - DW           | 2023<br>(Quarterly)                       | 8.8   | 100.0  | No                   |
| HAA Total (μg/L) Annual<br>Average - DW                       | 2023<br>(Quarterly)                       | 5.3   | 80.0   | No                   |

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

<sup>6a</sup>The owner of a small municipal residential system shall ensure that at least one water sample for organics is taken every 60 months (O.Reg 170/03, Schedule 13-4.(3). The last set of samples were collected and tested in 2021, the next set of samples are scheduled to be collected and tested in 2026.

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<br>(yyyy/mm/dd) | Sample Result |  |
|----------------------|-----------------------------|---------------|--|
| Fluoride (mg/L) - TW | 2022/01/04                  | 1.21          |  |