2023 SECTION 22 SUMMARY REPORT

AMABEL-SAUBLE 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

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, 2023 to December 31, 2023
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, 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 November 17, 2023 for the period covering December 9, 2022 to November 17, 2023. On January 4, 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 2022/2023 MECP Inspection Report

Non-Compliance(s)	Duration	Required Actions & Corrective Actions
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.

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 2023

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	82.0	11.9%	123.3	17.9%	2,541
February	79.0	11.5%	93.4	13.6%	2,211
March	77.8	11.3%	90.7	13.2%	2,413
April	88.7	12.9%	113.9	16.6%	2,662
May	117.0	17.0%	176.7	25.7%	3,626
June	159.4	23.2%	300.4	43.7%	4,780
July	155.3	22.6%	218.2	31.8%	4,814
August	139.2	20.3%	197.0	28.7%	4,316
September	109.0	15.9%	138.8	20.2%	3,270
October	95.9	14.0%	114.9	16.7%	2,973
November	88.5	12.9%	116.5	17.0%	2,655
December	86.5	12.6%	99.8	14.5%	2,680
2023	**106.5**	**15.5%**	**300.4**	**43.7%**	**38,940**

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 2023

Treated Water Flowrate		
Timeframe	**Average Flowrate (L/sec)**	**Maximum Flowrate (L/sec)**
January	0.94	7.61
February	0.90	6.07
March	0.90	7.53
April	1.03	57.61[4a]
May	1.36	14.67[4a]
June	1.85	61.46[4a]
July	1.80	56.75[4a]
August	1.61	21.25[4a]
September	1.26	7.78
October	1.11	7.70
November	1.02	62.68[4a]
December	1.00	7.68
2023	**1.24**	**62.68**[4a]

[4a]*High maximum flowrates in April to August and November 2023 were a result of hydrant usage.*

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 2023

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	43.9	6.4%	63.0	9.2%	1,361
February	42.7	6.2%	67.5	9.8%	1,194
March	42.1	6.1%	79.6	11.6%	1,305
April	44.7	6.5%	66.2	9.6%	1,340
May	58.6	8.5%	83.2	12.1%	1,815
June	79.1	11.5%	128.7	18.7%	2,374
July	78.3	11.4%	133.2	19.4%	2,428
August	68.1	9.9%	122.6	17.8%	2,111
September	54.2	7.9%	76.7	11.2%	1,627
October	51.2	7.5%	66.9	9.7%	1,486
November	47.2	6.9%	63.6	9.3%	1,320
December	45.2	6.6%	63.4	9.2%	1,358
2023	**54.8**	**8.0%**	**133.2**	**19.4%**	**19,721**

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 2023

Raw Water Flowrate – Well PW1		
Timeframe	**Average Flowrate (L/sec)**	**Maximum Flowrate (L/sec)**
January	3.60	5.59
February	3.72	4.67
March	3.61	4.67
April	3.85	4.61
May	3.82	4.84
June	3.83	4.53
July	3.81	4.53
August	3.80	4.58
September	3.81	7.25
October	3.80	5.70
November	3.74	4.63
December	3.64	4.57
2023	**3.74**	**7.25**

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 2023

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	48.0	7.0%	70.5	10.3%	1,488
February	45.1	6.6%	70.0	10.2%	1,262
March	43.7	6.4%	82.7	12.0%	1,354
April	54.8	8.0%	104.8	15.3%	1,534
May	63.1	9.2%	88.9	12.9%	1,957
June	84.0	12.2%	136.1	19.8%	2,520
July	84.1	12.2%	142.6	20.8%	2,608
August	73.8	10.7%	131.7	19.2%	2,288
September	59.5	8.7%	82.2	12.0%	1,784
October	55.8	8.1%	71.8	10.5%	1,617
November	52.8	7.7%	69.5	10.1%	1,478
December	53.3	7.8%	73.9	10.8%	1,599
2023	**60.0**	**8.7%**	**142.6**	**20.8%**	**21,489**

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 2023

Raw Water Flowrate – Well PW2		
Timeframe	**Average Flowrate (L/sec)**	**Maximum Flowrate (L/sec)**
January	3.78	4.84
February	3.88	4.92
March	3.76	4.91
April	4.09	4.92
May	4.06	4.86
June	4.05	4.90
July	4.07	4.88
August	4.08	4.88
September	4.07	4.92
October	4.09	4.88
November	4.15	4.87
December	4.23	4.93
2023	**4.03**	**4.93**

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 2023

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	1.2	0.5%	30.8	11.8%	35.7
February	0.4	0.2%	5.7	2.2%	12.7
March	0.4	0.2%	3.5	1.3%	12.1
April	2.7	1.0%	3.5	1.3%	10.9
May	0.6	0.2%	8.2	3.1%	19.7
June	1.8	0.7%	2.8	1.1%	7.2
July	2.8	1.1%	4.4	1.7%	14.2
August	3.7	1.4%	6.1	2.3%	14.8
September	11.2	4.3%	37.4	14.3%	44.6
October	1.6	0.6%	2.6	1.0%	8.0
November	1.8	0.7%	2.3	0.9%	5.6
December	3.2	1.2%	8.1	3.1%	13.0
2023	**1.3**	**0.5%**	**37.4**	**14.3%**	**198.4**

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 2023

	Raw Water Flowrate – Well W10 Winburk	
Timeframe	**Average Flowrate (L/sec)**	**Maximum Flowrate (L/sec)**
January	0.26	4.20
February	0.36	7.51[10a]
March	0.38	4.32
April	2.69	4.35
May	2.82	4.28
June	1.97	4.35
July	2.52	4.41
August	2.79	4.90
September	2.70	4.43
October	1.78	4.39
November	1.96	4.31
December	2.37	4.60
2023	**0.95**	**7.51[10a]**

[10a]On February 27, 2023 for less than 1 minute at pump start-up, did not exceed PTTW flowrate of 364 L/min.

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.

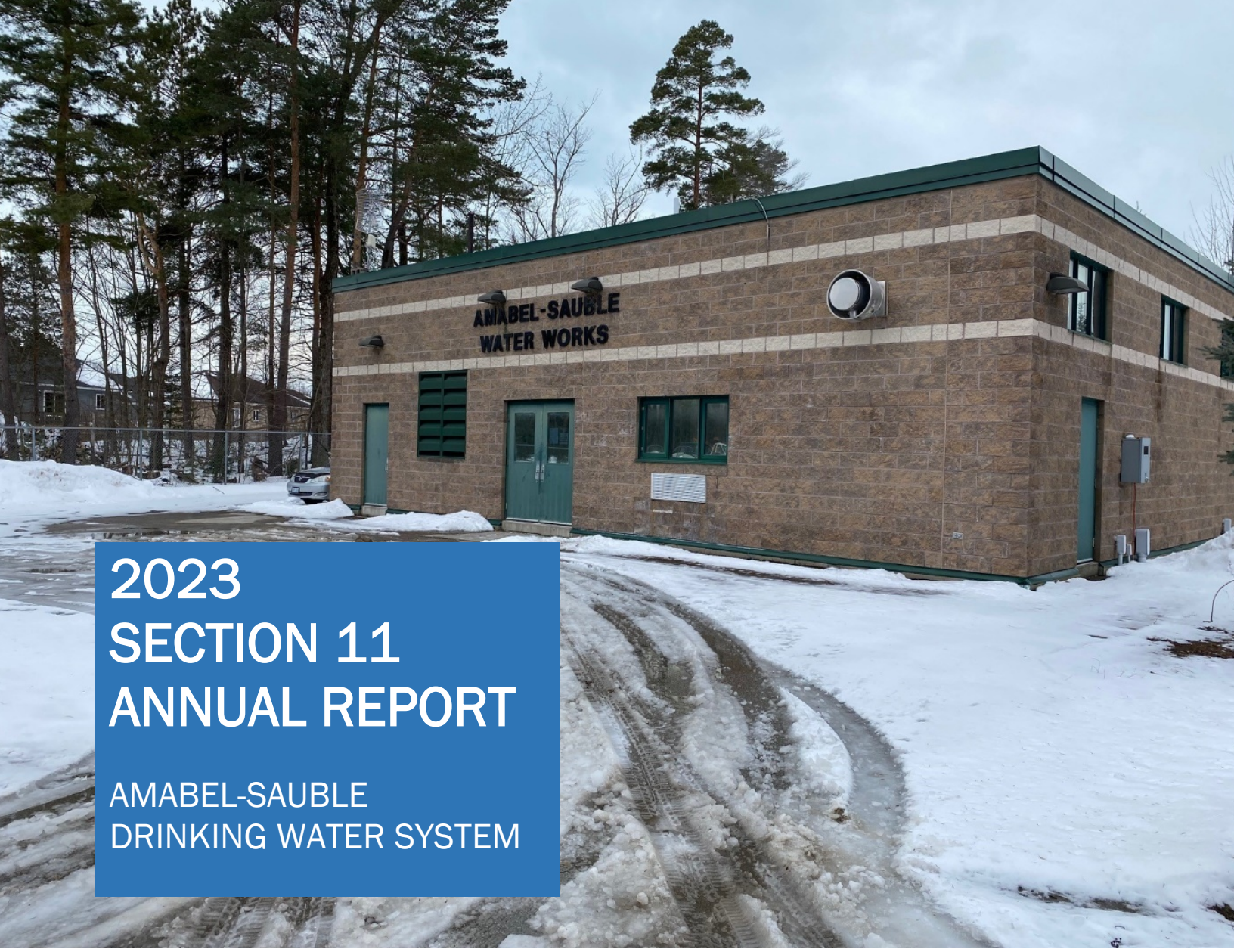
Table 11. Raw Water Monthly Average Flow for any Combination of Well PW1 and Well PW2 for 2023

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	93.0	13.5%	17.4%
February	88.2	12.8%	16.5%
March	86.2	12.5%	16.1%
April	96.2	14.0%	18.0%
May	122.3	17.8%	22.8%
June	163.4	23.8%	30.5%
July	162.9	23.7%	30.4%
August	142.4	20.7%	26.6%
September	115.2	16.8%	21.5%
October	100.3	14.6%	18.7%
November	93.5	13.6%	17.5%
December	95.8	13.9%	17.9%
2023	**113.4**	**16.5%**	**21.2%**

Table 12. Raw Water Monthly Maximum Flow and Total Volume for any Combination of Well PW1 and Well PW2 for 2023

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	129.0	18.8%	24.1%	0	2,884
February	137.5	20.0%	25.7%	0	2,470
March	162.3	23.6%	30.3%	0	2,671
April	135.5	19.7%	25.3%	0	2,885
May	172.1	25.1%	32.1%	0	3,792
June	264.8	38.5%	49.4%	0	4,901
July	275.8	40.1%	51.5%	0	5,051
August	254.2	37.0%	47.5%	0	4,414
September	158.8	23.1%	29.6%	0	3,456
October	138.6	20.2%	25.9%	0	3,110
November	133.1	19.4%	24.8%	0	2,804
December	137.3	20.0%	25.6%	0	2,970
2023	**275.8**	**40.1%**	**51.5%**	**0**	**41,408**

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.



2023 SECTION 11 ANNUAL REPORT

AMABEL-SAUBLE 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

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, 2023 to December 31, 2023
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, 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, 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 and categorized 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:

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 turbidity analyzer
- Reservoir inspection and cleaning
- Replacement cartridge filters
- Chemical injection valves and pump rebuild kits
- High lift pump #2 drive replacement
- Fire hydrant rebuild

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**
2023/03/30	Lead	10.1 ug/L	• AWQI #161688-Lead exceedance in a Distribution sample • Reported to SAC, Grey Bruce Health Unit (GBHU), and MECP on April 4, 2023 • The Operator flushed the sample station and took resamples at AWQI site (Martin F-line) on April 14, 2023 which showed a result of 0.9 µg/L for Lead. • No further action recommended by SAC, GBHU or MECP • Written notice of resolution on April 14, 2023

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]	52	0	0	0	2	N/A	N/A	N/A
Raw Well #2[1a]	52	0	0	0	0	N/A	N/A	N/A
Raw Well Winburk[1a]	52	0	0	0	0	N/A	N/A	N/A
Treated[1b]	52	0	0	0	0	52	0	2
Distribution[1c]	104	0	0	0	0	52	0	3

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 at minimum eight 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	0.03	0.40
Free Chlorine Residual, Treated Water (mg/L)[2b]	8760	0.73	2.60
Free Chlorine Residual, Distribution (mg/L)[2c]	416	0.80	1.93

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)	2023 (Monthly)	12	3.75	25 mg/L
2020-03-06 MDWL 094-101 (Issue 4)	Total Chlorine Residual (Filter backwash)	2023 (Monthly)	12	0.016	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	2023/01/03	<MDL 0.6	6.0	No
Arsenic: As (µg/L) - TW	2023/01/03	0.6	10.0	No
Barium: Ba (µg/L) - TW	2023/01/03	321.0	1000.0	No
Boron: B (µg/L) - TW	2023/01/03	105.0	5000.0	No
Cadmium: Cd (µg/L) - TW	2023/01/03	0.011	5.0	No
Chromium: Cr (µg/L) - TW	2023/01/03	0.33	50.0	No
Mercury: Hg (µg/L) - TW	2023/01/03	<MDL 0.01	1.0	No
Selenium: Se (µg/L) - TW	2023/01/03	<MDL 0.04	50.0	No
Uranium: U (µg/L) - TW	2023/01/03	0.315	20.0	No
Fluoride (mg/L) - TW	2020/01/06[4b]	1.35	1.5	No
Nitrite (mg/L) - TW	2023/01/09	<MDL 0.003	1.0	No
Nitrite (mg/L) - TW	2023/04/03	<MDL 0.003	1.0	No
Nitrite (mg/L) - TW	2023/07/04	<MDL 0.003	1.0	No
Nitrite (mg/L) - TW	2023/10/03	<MDL 0.003	1.0	No
Nitrate (mg/L) - TW	2023/01/09	0.025	10.0	No
Nitrate (mg/L) - TW	2023/04/03	0.019	10.0	No
Nitrate (mg/L) - TW	2023/07/04	0.024	10.0	No
Nitrate (mg/L) - TW	2023/10/03	0.020	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 2023, the next set of samples are scheduled to be collected and tested in 2024.

[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 µ/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]	5	0.27	10.1	1
Distribution – Alkalinity (mg/L as $CaCO_3$)	4	193	197	N/A
Distribution – pH	4	7.49	8.15	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	194	196	N/A
Distribution – pH	4	7.65	7.79	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	2023/01/03	<MDL 0.02	5.0	No
Atrazine + N-dealkylated metabolites (µg/L) - TW	2023/01/03	<MDL 0.01	5.0	No
Azinphos-methyl (µg/L) - TW	2023/01/03	<MDL 0.05	20.0	No
Benzene (µg/L) - TW	2023/01/03	<MDL 0.32	1.0	No
Benzo(a)pyrene (µg/L) - TW	2023/01/03	<MDL 0.004	0.01	No
Bromoxynil (µg/L) - TW	2023/01/03	<MDL 0.33	5.0	No
Carbaryl (µg/L) - TW	2023/01/03	<MDL 0.05	90.0	No
Carbofuran (µg/L) - TW	2023/01/03	<MDL 0.01	90.0	No
Carbon Tetrachloride (µg/L) - TW	2023/01/03	<MDL 0.17	2.0	No
Chlorpyrifos (µg/L) - TW	2023/01/03	<MDL 0.02	90.0	No
Diazinon (µg/L) - TW	2023/01/03	<MDL 0.02	20.0	No
Dicamba (µg/L) - TW	2023/01/03	<MDL 0.2	120.0	No
1,2-Dichlorobenzene (µg/L) - TW	2023/01/03	<MDL 0.41	200.0	No
1,4-Dichlorobenzene (µg/L) - TW	2023/01/03	<MDL 0.36	5.0	No
1,2-Dichloroethane (µg/L) - TW	2023/01/03	<MDL 0.35	5.0	No
1,1-Dichloroethylene (µg/L) - TW	2023/01/03	<MDL 0.33	14.0	No
Dichloromethane (Methylene Chloride) (µg/L) - TW	2023/01/03	<MDL 0.35	50.0	No

Parameter & Location	**Sample Date**[6a] (yyyy/mm/dd)	**Sample Result**	**Maximum Allowable Concentration (MAC)**	**Exceedance of MAC**
2,4-Dichlorophenol (µg/L) - TW	2023/01/03	<MDL 0.15	900.0	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (µg/L) - TW	2023/01/03	<MDL 0.19	100.0	No
Diclofop-methyl (µg/L) - TW	2023/01/03	<MDL 0.4	9.0	No
Dimethoate (µg/L) - TW	2023/01/03	<MDL 0.06	20.0	No
Diquat (µg/L) - TW	2023/01/03	<MDL 1.0	70.0	No
Diuron (µg/L) - TW	2023/01/03	<MDL 0.03	150.0	No
Glyphosate (µg/L) - TW	2023/01/03	<MDL 1.0	280.0	No
Malathion (µg/L) - TW	2023/01/03	<MDL 0.02	190.0	No
Metolachlor (µg/L) - TW	2023/01/03	<MDL 0.01	50.0	No
Metribuzin (µg/L) - TW	2023/01/03	<MDL 0.02	80.0	No
Monochlorobenzene (Chlorobenzene) (µg/L) - TW	2023/01/03	<MDL 0.3	80.0	No
Paraquat (µg/L) - TW	2023/01/03	<MDL 1.0	10.0	No
PCB (µg/L) - TW	2023/01/03	<MDL 0.04	3.0	No
Pentachlorophenol (µg/L) - TW	2023/01/03	<MDL 0.15	60.0	No
Phorate (µg/L) - TW	2023/01/03	<MDL 0.01	2.0	No
Picloram (µg/L) - TW	2023/01/03	<MDL 1.0	190.0	No
Prometryne (µg/L) - TW	2023/01/03	<MDL 0.03	1.0	No
Simazine (µg/L) - TW	2023/01/03	<MDL 0.01	10.0	No
Terbufos (µg/L) - TW	2023/01/03	<MDL 0.01	1.0	No
Tetrachloroethylene (µg/L) - TW	2023/01/03	<MDL 0.35	10.0	No
2,3,4,6-Tetrachlorophenol (µg/L) - TW	2023/01/03	<MDL 0.2	100.0	No
Triallate (µg/L) - TW	2023/01/03	<MDL 0.01	230.0	No
Trichloroethylene (µg/L) - TW	2023/01/03	<MDL 0.44	5.0	No
2,4,6-Trichlorophenol (µg/L) - TW	2023/01/03	<MDL 0.25	5.0	No
2-methyl-4-chlorophenoxyacetic acid (MCPA) (µg/L) – TW	2023/01/03	<MDL 0.12	100.0	No
Trifluralin (µg/L) - TW	2023/01/03	<MDL 0.02	45.0	No
Vinyl Chloride (µg/L) - TW	2023/01/03	<MDL 0.17	1.0	No

Parameter & Location	Sample Date[6a] (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration (MAC)	Exceedance of MAC
Trihalomethane: Total (µg/L) Annual Average - DW	2023 (Quarterly)	33.5	100.0	No
HAA Total (µg/L) Annual Average - DW	2023 (Quarterly)	6.7	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 2023, the next set of samples are scheduled to be collected and tested in 2024.

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