2024 SECTION 11 ANNUAL REPORT

ANGUS DRINKING WATER SYSTEM

For the period of
January 1st, 2024 to December 31st, 2024

Prepared for the Corporation of the Township of Essa by the Ontario Clean Water Agency

TOWNSHIP of ESSA
Where Town and Country Meet

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ONTARIO CLEAN WATER AGENCY
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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:	260001026
Drinking Water System Name:	Angus Drinking Water System
Drinking Water System Owner:	The Corporation of the Township of Essa
Drinking Water System Category:	Large Municipal Residential
Reporting Period:	January 1, 2024 to December 31, 2024

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

Yes

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))*:

- Hard copy available for public viewing at the Township of Essa Municipal Office at 5786 Simcoe County Road 21, Utopia, Essa Township, ON, L0M1T0
- https://www.essatownship.on.ca/council-administration/plans-reports-and-studies/

Note: this is required for large municipal residential systems or small municipal residential systems.

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 Angus Drinking Water System is classified as a Class II Water Distribution and Supply Subsystem and categorized as a Large Municipal Drinking Water System under O.Reg 170/03, servicing an approximate population of 14,503 persons. The system is comprised of three pumphouses, including the Mill Street Pumphouse, McGeorge Pumphouse and Brownley Pumphouse which draw water from six production wells, along with receiving water from the Collingwood/Alliston pipeline within the Mill Street Pumphouse. The three facilities supply water through a common distribution system.

McGeorge (Centre Street) Pumphouse

The raw water for the McGeorge pumphouse is supplied by two drilled groundwater wells (Well 2 and Well 3). The water pumped from the wells is treated with sodium silicate (for iron sequestration) and sodium hypochlorite (for primary and secondary disinfection) and the treated water is stored in two (2) underground reservoirs prior to entering the distribution system. Online equipment continuously monitors and records free chlorine residual and flowrates. In the event of a power failure, the pumphouse is equipped with standby power.

Mill Street Pumphouse

The Mill Street Pumphouse is located at 28 Mill Street in Angus. Raw Water is supplied from one drilled groundwater well (Well 1). As groundwater is pumped from the well, chemical feed pumps add sodium silicate (for iron sequestering) and sodium hypochlorite (for primary and secondary disinfection). Treated water is stored in two underground reservoirs. Flow is measured before entering the reservoir and as the treated water enters the distribution system. Online equipment continuously monitors and records free chlorine residual and flowrates. In the event of a power failure, the pumphouse is equipped with standby power. Note: The Mill Street Water Treatment Plant receives the daily difference of 100 m^3 minus Baxter Distribution System daily water taking from the New Tecumseth Pipeline as of 2015. The Raymond A. Barker Ultrafiltration Plant in Collingwood supplies safe drinking water through the Pipeline to the Baxter and Mill Street facilities. Collingwood water sample results are found in the Annual Compliance Reports at https://www.collingwood.ca

Brownley Pumphouse

The Brownley Pumphouse is located at 8610 5th Line. Raw Water is supplied from three groundwater wells (Well 4, Well 5 and Well 6). As groundwater is pumped from the wells, chemical feed pumps add sodium silicate (for iron sequestering) and sodium hypochlorite (for primary and secondary disinfection). Treated water is stored in one (1) underground reservoir.

Flow is measured before entering the reservoir and as the treated water enters the distribution system. Online equipment continuously monitors and records free chlorine residual and flowrates. In the event of a power failure, the pumphouse is equipped with standby power.

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

- Sodium Hypochlorite 12% Solution
- Sodium Silicate

Significant expenses were incurred to:

	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))*:

- Diesel generator repairs and load testing (all pump houses)
- Annual TSSA Inspections (all pumphouses)
- Chemical Pump Rebuild kits (all pumphouses)
- Chlorine Analyzer probes and caps (all pumphouses)
- Fire hydrant repairs and replacements
- Valve repairs/service repairs/hydrant repairs
- Hydrant painting
- General building maintenance
- Distribution swabbing & flushing
- Mill Street Pumphouse- monitoring well probe install
- Mill Street Pumphouse- and Brownley highlift pumps rebuilds
- Brownley Pumphouse- air conditioning repair
- Brownley Pumphouse- silicate dosing system pump and control panel replacement

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.	Min.
RW[1A], Well 1	53	0	0	0	0	N/A	N/A	N/A
RW[1A], Well 2	53	0	0	0	0	N/A	N/A	N/A
RW[1A], Well 3	53	0	0	0	1	N/A	N/A	N/A
RW[1A], Well 4	45[1D]	0	0	0	0	N/A	N/A	N/A
RW[1A], Well 5	53	0	0	0	0	N/A	N/A	N/A
RW[1A], Well 6	53	0	0	0	0	N/A	N/A	N/A
TW1[1B]	49[1E]	0	0	0	0	49	<10	30
TW2[1B]	53	0	0	0	0	53	<10	20
TW3[1B]	53	0	0	0	0	53	<10	20
Distribution[1C]	266	0	0	0	0	102	<10	60

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]RW=Raw Water. RW Well 1= Well #1 Mill Street; RW Well 2= Well #2 McGeorge; RW Well 3= Well #3 McGeorge; RW Well 4= Well #4 Brownley; RW Well 5= Well #5 Brownley; RW Well 6= Well #6 Brownley. 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]TW=Treated Water. TW1=Treated Water McGeorge Pumphouse; TW2=Treated Water Mill Street Pumphouse; TW3= Treated Water Brownley Pumphouse. 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 distribution sample for every 1,000 people served by the

system, are taken every month, with at least one of the samples being taken in each week and that each of the samples taken is 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). As of 2024, the population of Angus was 14,503 persons (as confirmed by the owner in December, 2023 - based on the 2021 Statistics Canada Census Data) and thus requires at the minimum twenty-two (22) monthly distribution samples

[1D]August 6 to October 21, 2024- Well #4 at Brownley was offline for maintenance activities, no raw water samples were taken during this period

[1E]January 1 to January 22, 2024- McGeorge Pumphouse was offline for maintenance activities. No treated water samples were taken during this period.

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, Raw Water McGeorge Well 1 (Grab) [NTU][2A]	12	0.11	0.88
Turbidity, Raw Water McGeorge Well 2 (Grab) [NTU][2A]	12	0.09	0.82
Turbidity, Raw Water Mill Street Well 3 (Grab) [NTU][2A]	12	0.11	0.97
Turbidity, Raw Water Brownley Well 4 (Grab) [NTU][2A]	10[2D]	0.16	0.97
Turbidity, Raw Water Brownley Well 5 (Grab) [NTU][2A]	12	0.13	0.66
Turbidity, Raw Water Brownley Well 6 (Grab) [NTU][2A]	12	0.23	0.96
Free Chlorine Residual, (Continuous) McGeorge [mg/L]-TW[2B]	8760	0.41	4.99[2E]
Free Chlorine Residual, (Continuous) Mill Street [mg/L]-TW[2B]	8760	0.80	1.57
Free Chlorine Residual, (Continuous) Brownley [mg/L]-TW[2B]	8760	0.52	2.57
Free Chlorine Residual, Distribution (Continuous) [mg/L]-DW[2C]	8760	0.31	1.83

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

[2A]O.Reg 170/03 Schedule 7-3.(1)(1.1) requires a raw water sample be taken at least once every month from each well that is supplying water to the system and tested for turbidity.

[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. Secondary disinfection at Angus DWS is monitored via an online continuous free chlorine distribution analyzer at the Angus WPCP, as permitted under the regulation.

[2D]In August and September, 2024- Well #4 Brownley was offline for maintenance and repair activities. No monthly raw water turbidity samples were taken.

[2E]December 18, 2024, in response to a low chlorine alarm the pumphouse was turned offline. When place back online on December 19, 2024 the reservoir was dosed and filled. High chlorinated water was ran to waste. The pumphouse remained offline until the free chlorine was 3.40 mg/L.

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** (yyyy/mm/dd)	**Result**	**Unit of Measure**
N/A	N/A	N/A	N/A	N/A

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) – TW1	2024/01/30	< MDL 0.6	6.0	No
Antimony: Sb (µg/L) – TW2	2024/01/15	< MDL 0.6	6.0	No
Antimony: Sb (µg/L) – TW3	2024/01/15	< MDL 0.6	6.0	No
Arsenic: As (µg/L) - TW1	2024/01/30	0.3	10.0	No
Arsenic: As (µg/L) - TW2	2024/01/15	0.7	10.0	No
Arsenic: As (µg/L) - TW3	2024/01/15	0.3	10.0	No
Barium: Ba (µg/L) – TW1	2024/01/30	75	1000.0	No
Barium: Ba (µg/L) – TW2	2024/01/15	136	1000.0	No
Barium: Ba (µg/L) – TW3	2024/01/15	61.9	1000.0	No
Boron: B (µg/L) – TW1	2024/01/30	27	5000.0	No
Boron: B (µg/L) – TW2	2024/01/15	31	5000.0	No
Boron: B (µg/L) – TW3	2024/01/15	29	5000.0	No
Cadmium: Cd (µg/L) – TW1	2024/01/30	< MDL 0.003	5.0	No
Cadmium: Cd (µg/L) – TW2	2024/01/15	< MDL 0.003	5.0	No
Cadmium: Cd (µg/L) – TW3	2024/01/15	< MDL 0.003	5.0	No
Chromium: Cr (µg/L) – TW1	2024/01/30	0.58	50.0	No
Chromium: Cr (µg/L) – TW2	2024/01/15	0.12	50.0	No
Chromium: Cr (µg/L) – TW3	2024/01/15	0.19	50.0	No
Mercury: Hg (µg/L) – TW1	2024/01/30	< MDL 0.01	1.0	No
Mercury: Hg (µg/L) – TW2	2024/01/15	< MDL 0.01	1.0	No
Mercury: Hg (µg/L) – TW3	2024/01/15	< MDL 0.01	1.0	No
Selenium: Se (µg/L) – TW1	2024/01/30	< MDL 0.04	50.0	No

Parameter & Location	Sample Date[4A] (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration (MAC)	Exceedance of MAC
Selenium: Se (µg/L) – TW2	2024/01/15	< MDL 0.04	50.0	No
Selenium: Se (µg/L) – TW3	2024/01/15	0.11	50.0	No
Uranium: U (µg/L) – TW1	2024/01/30	0.036	20.0	No
Uranium: U (µg/L) – TW2	2024/01/15	0.077	20.0	No
Uranium: U (µg/L) – TW3	2024/01/15	1.8	20.0	No
Fluoride (mg/L) – TW1	2024/01/30[4B]	0.14	1.5	No
Fluoride (mg/L) – TW2	2023/07/24[4B]	0.12	1.5	No
Fluoride (mg/L) – TW3	2023/07/24[4B]	0.13	1.5	No
Nitrate : (mg/L) - TW1	2024/01/30	0.046	10	No
Nitrate : (mg/L) - TW1	2024/04/15	0.019	10	No
Nitrate : (mg/L) - TW1	2024/07/22	0.015	10	No
Nitrate : (mg/L) - TW1	2024/10/21	0.019	10	No
Nitrate : (mg/L) - TW2	2024/01/15	0.015	10	No
Nitrate : (mg/L) - TW2	2024/04/15	0.022	10	No
Nitrate : (mg/L) - TW2	2024/07/22	0.01	10	No
Nitrate : (mg/L) - TW2	2024/10/21	0.062	10	No
Nitrate : (mg/L) - TW3	2024/01/15	1.4	10	No
Nitrate : (mg/L) - TW3	2024/04/15	1.56	10	No
Nitrate : (mg/L) - TW3	2024/07/22	1.52	10	No
Nitrate : (mg/L) - TW3	2024/10/21	1.66	10	No
Nitrite : (mg/L) - TW1	2024/01/30	< MDL 0.003	1	No
Nitrite : (mg/L) - TW1	2024/04/15	< MDL 0.003	1	No
Nitrite : (mg/L) - TW1	2024/07/22	< MDL 0.003	1	No
Nitrite : (mg/L) - TW1	2024/10/21	< MDL 0.003	1	No
Nitrite : (mg/L) - TW2	2024/01/15	< MDL 0.003	1	No
Nitrite : (mg/L) - TW2	2024/04/15	< MDL 0.003	1	No
Nitrite : (mg/L) - TW2	2024/07/22	< MDL 0.003	1	No
Nitrite : (mg/L) - TW2	2024/10/21	< MDL 0.003	1	No
Nitrite : (mg/L) - TW3	2024/01/15	< MDL 0.003	1	No
Nitrite : (mg/L) - TW3	2024/04/15	< MDL 0.003	1	No
Nitrite : (mg/L) - TW3	2024/07/22	< MDL 0.003	1	No
Nitrite : (mg/L) - TW3	2024/10/21	< MDL 0.003	1	No

Parameter & Location	Sample Date[4D] (yyyy/mm/dd)	Sample Result	Aesthetic Objective (AO)	Exceedance	
				AO	> 20 mg/L
Sodium: Na (mg/L) – TW1	2024/01/30	19.4	200	No	No

Sodium: Na (mg/L) – TW2	2023/07/24	19.0	200	No	No
Sodium: Na (mg/L) – TW3	2023/07/24	17.4	200	No	No

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

Note: TW1= McGeorge Treatment Pumphouse; TW2= Mill Street Treatment Pumphouse; TW3= Brownley Treatment Pumphouse

[4A]Inorganic Parameters (Schedule 23) are required to be tested every 36 months for a large municipal residential system, if the system obtains water from a raw water source that is ground water (O. Reg 170/03 Schedule 13-2(b). The last set of samples was collected and tested in 2024, the next set of samples is scheduled to be collected and tested in 2027.

[4B]Fluoride is reportable every 60 months. The most recent Fluoride samples were tested in 2023 for TW2 TW3. TW1 samples were tested in 2024, as the Pumphouse was offline in 2023. The next set of samples is scheduled to be tested in 2028 for TW2 and TW3. TW1 scheduled to be tested in 2029.

Note: There is no regulatory Maximum Allowable Concentration (MAC) 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.

[4D]Sodium is reportable every 60 months. The most recent Sodium samples were tested in 2023 for TW2 and TW3. TW1 was tested in 2024, as the Pumphouse was offline in 2023. The next set of samples is scheduled to be tested in 2028 for TW2 and TW3. TW1 scheduled to be tested in 2029.

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]	4	0.03	0.13	0
Distribution – Alkalinity (mg/L as $CaCO_3$)	4	154	176	N/A
Distribution – pH	4	7.02	7.16	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]	4	0.05	0.59	0
Distribution – Alkalinity (mg/L as $CaCO_3$)	4	171	173	N/A
Distribution – pH	4	6.9	7.4	N/A
Period: December 15 to 31				
Plumbing – Lead (µg/L)[5B]	N/A	N/A	N/A	0
Distribution – Lead (µg/L)[5C]	N/A	N/A	N/A	0
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]The number of sampling points for the system is based on the population served by the system. In 2024, the number of people served by the system was 14,503 persons (as confirmed with the Owner in December, 2023- based on the 2021 Statistics Canada Census data) and therefore requires four (4) 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 winter period of December 15, 2023 to April 15, 2024 and summer period of June 15, 2024 to October 15, 2024. The next set of distribution lead samples is scheduled to be collected within the winter period of December 15, 2026 to April 15, 2027 and summer period of June 15, 2027 to October 15, 2027.

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) - TW1	2024/01/30	<MDL 0.02	5.0	No
Alachlor (µg/L) - TW2	2024/01/15	<MDL 0.02	5.0	No
Alachlor (µg/L) - TW3	2024/01/15	<MDL 0.02	5.0	No
Atrazine + N-dealkylated metabolites (µg/L) - TW1	2024/01/30	<MDL 0.01	5.0	No
Atrazine + N-dealkylated metabolites (µg/L) - TW2	2024/01/15	<MDL 0.01	5.0	No
Atrazine + N-dealkylated metabolites (µg/L) - TW3	2024/01/15	<MDL 0.01	5.0	No
Azinphos-methyl (µg/L) - TW1	2024/01/30	<MDL 0.05	20.0	No
Azinphos-methyl (µg/L) - TW2	2024/01/15	<MDL 0.05	20.0	No
Azinphos-methyl (µg/L) - TW3	2024/01/15	<MDL 0.05	20.0	No
Benzene (µg/L) - TW1	2024/01/30	<MDL 0.32	1.0	No
Benzene (µg/L) - TW2	2024/01/15	<MDL 0.32	1.0	No
Benzene (µg/L) - TW3	2024/01/15	<MDL 0.32	1.0	No
Benzo(a)pyrene (µg/L) - TW1	2024/01/30	<MDL 0.004	0.01	No
Benzo(a)pyrene (µg/L) - TW2	2024/01/15	<MDL 0.004	0.01	No
Benzo(a)pyrene (µg/L) - TW3	2024/01/15	<MDL 0.004	0.01	No
Bromoxynil (µg/L) - TW1	2024/01/30	<MDL 0.33	5.0	No
Bromoxynil (µg/L) - TW2	2024/01/15	<MDL 0.33	5.0	No
Bromoxynil (µg/L) - TW3	2024/01/15	<MDL 0.33	5.0	No
Carbaryl (µg/L) - TW1	2024/01/30	<MDL 0.05	90.0	No
Carbaryl (µg/L) - TW2	2024/01/15	<MDL 0.05	90.0	No
Carbaryl (µg/L) - TW3	2024/01/15	<MDL 0.05	90.0	No

Parameter & Location	Sample Date[6A] (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration (MAC)	Exceedance of MAC
Carbofuran (µg/L) - TW1	2024/01/30	<MDL 0.01	90.0	No
Carbofuran (µg/L) - TW2	2024/01/15	<MDL 0.01	90.0	No
Carbofuran (µg/L) - TW3	2024/01/15	<MDL 0.01	90.0	No
Carbon Tetrachloride (µg/L) - TW1	2024/01/30	<MDL 0.17	2.0	No
Carbon Tetrachloride (µg/L) - TW2	2024/01/15	<MDL 0.17	2.0	No
Carbon Tetrachloride (µg/L) - TW3	2024/01/15	<MDL 0.17	2.0	No
Chlorpyrifos (µg/L) - TW1	2024/01/30	<MDL 0.02	90.0	No
Chlorpyrifos (µg/L) - TW2	2024/01/15	<MDL 0.02	90.0	No
Chlorpyrifos (µg/L) - TW3	2024/01/15	<MDL 0.02	90.0	No
Diazinon (µg/L) - TW1	2024/01/30	<MDL 0.02	20.0	No
Diazinon (µg/L) - TW2	2024/01/15	<MDL 0.02	20.0	No
Diazinon (µg/L) - TW3	2024/01/15	<MDL 0.02	20.0	No
Dicamba (µg/L) - TW1	2024/01/30	<MDL 0.2	120.0	No
Dicamba (µg/L) - TW2	2024/01/15	<MDL 0.2	120.0	No
Dicamba (µg/L) - TW3	2024/01/15	<MDL 0.2	120.0	No
1,2-Dichlorobenzene (µg/L) - TW1	2024/01/30	<MDL 0.41	200.0	No
1,2-Dichlorobenzene (µg/L) - TW2	2024/01/15	<MDL 0.41	200.0	No
1,2-Dichlorobenzene (µg/L) - TW3	2024/01/15	<MDL 0.41	200.0	No
1,4-Dichlorobenzene (µg/L) - TW1	2024/01/30	<MDL 0.36	5.0	No
1,4-Dichlorobenzene (µg/L) - TW2	2024/01/15	<MDL 0.36	5.0	No
1,4-Dichlorobenzene (µg/L) - TW3	2024/01/15	<MDL 0.36	5.0	No
1,2-Dichloroethane (µg/L)- TW1	2024/01/30	<MDL 0.35	5.0	No
1,2-Dichloroethane (µg/L)- TW2	2024/01/15	<MDL 0.35	5.0	No
1,2-Dichloroethane (µg/L)- TW3	2024/01/15	<MDL 0.35	5.0	No
1,1-Dichloroethylene (µg/L) - TW1	2024/01/30	<MDL 0.33	14.0	No
1,1-Dichloroethylene (µg/L) - TW2	2024/01/15	<MDL 0.33	14.0	No
1,1-Dichloroethylene (µg/L) - TW3	2024/01/15	<MDL 0.33	14.0	No
Dichloromethane (Methylene Chloride) (µg/L) - TW1	2024/01/30	<MDL 0.35	50.0	No
Dichloromethane (Methylene Chloride) (µg/L) - TW2	2024/01/15	<MDL 0.35	50.0	No
Dichloromethane (Methylene Chloride) (µg/L) - TW3	2024/01/15	<MDL 0.35	50.0	No
2,4-Dichlorophenol (µg/L) - TW1	2024/01/30	<MDL 0.15	900.0	No
2,4-Dichlorophenol (µg/L) - TW2	2024/01/15	<MDL 0.15	900.0	No
2,4-Dichlorophenol (µg/L) - TW3	2024/01/15	<MDL 0.15	900.0	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (µg/L) - TW1	2024/01/30	<MDL 0.19	100.0	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (µg/L) - TW2	2024/01/15	<MDL 0.19	100.0	No

Parameter & Location	Sample Date[6A] (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration (MAC)	Exceedance of MAC
2,4-Dichlorophenoxy acetic acid (2,4-D) (µg/L) - TW3	2024/01/15	<MDL 0.19	100.0	No
Diclofop-methyl (µg/L) - TW1	2024/01/30	<MDL 0.4	9.0	No
Diclofop-methyl (µg/L) - TW2	2024/01/15	<MDL 0.4	9.0	No
Diclofop-methyl (µg/L) - TW3	2024/01/15	<MDL 0.4	9.0	No
Dimethoate (µg/L) - TW1	2024/01/30	<MDL 0.06	20.0	No
Dimethoate (µg/L) - TW2	2024/01/15	<MDL 0.06	20.0	No
Dimethoate (µg/L) - TW3	2024/01/15	<MDL 0.06	20.0	No
Diquat (µg/L) - TW1	2024/01/30	<MDL 1.0	70.0	No
Diquat (µg/L) - TW2	2024/01/15	<MDL 1.0	70.0	No
Diquat (µg/L) - TW3	2024/01/15	<MDL 1.0	70.0	No
Diuron (µg/L) - TW1	2024/01/30	<MDL 0.03	150.0	No
Diuron (µg/L) - TW2	2024/01/15	<MDL 0.03	150.0	No
Diuron (µg/L) - TW3	2024/01/15	<MDL 0.03	150.0	No
Glyphosate (µg/L) - TW1	2024/01/30	<MDL 1.0	280.0	No
Glyphosate (µg/L) - TW2	2024/01/15	<MDL 1.0	280.0	No
Glyphosate (µg/L) - TW3	2024/01/15	<MDL 1.0	280.0	No
Malathion (µg/L) - TW1	2024/01/30	<MDL 0.02	190.0	No
Malathion (µg/L) - TW2	2024/01/15	<MDL 0.02	190.0	No
Malathion (µg/L) - TW3	2024/01/15	<MDL 0.02	190.0	No
Metolachlor (µg/L) - TW1	2024/01/30	<MDL 0.01	50.0	No
Metolachlor (µg/L) - TW2	2024/01/15	<MDL 0.01	50.0	No
Metolachlor (µg/L) - TW3	2024/01/15	<MDL 0.01	50.0	No
Metribuzin (µg/L) - TW1	2024/01/30	<MDL 0.02	80.0	No
Metribuzin (µg/L) - TW2	2024/01/15	<MDL 0.02	80.0	No
Metribuzin (µg/L) - TW3	2024/01/15	<MDL 0.02	80.0	No
Monochlorobenzene (Chlorobenzene) (µg/L) - TW1	2024/01/30	<MDL 0.3	80.0	No
Monochlorobenzene (Chlorobenzene) (µg/L) - TW2	2024/01/15	<MDL 0.3	80.0	No
Monochlorobenzene (Chlorobenzene) (µg/L) - TW3	2024/01/15	<MDL 0.3	80.0	No
Paraquat (µg/L) - TW1	2024/01/30	<MDL 1.0	10.0	No
Paraquat (µg/L) - TW2	2024/01/15	<MDL 1.0	10.0	No
Paraquat (µg/L) - TW3	2024/01/15	<MDL 1.0	10.0	No
PCB (µg/L) - TW1	2024/01/30	<MDL 0.04	3.0	No
PCB (µg/L) - TW2	2024/01/15	<MDL 0.04	3.0	No
PCB (µg/L) - TW3	2024/01/15	<MDL 0.04	3.0	No
Pentachlorophenol (µg/L) - TW1	2024/01/30	<MDL 0.15	60.0	No
Pentachlorophenol (µg/L) - TW2	2024/01/15	<MDL 0.15	60.0	No
Pentachlorophenol (µg/L) - TW3	2024/01/15	<MDL 0.15	60.0	No

Parameter & Location	Sample Date[6A] (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration (MAC)	Exceedance of MAC
Phorate (µg/L) - TW1	2024/01/30	<MDL 0.01	2.0	No
Phorate (µg/L) - TW2	2024/01/15	<MDL 0.01	2.0	No
Phorate (µg/L) - TW3	2024/01/15	<MDL 0.01	2.0	No
Picloram (µg/L) - TW1	2024/01/30	<MDL 1.0	190.0	No
Picloram (µg/L) - TW2	2024/01/15	<MDL 1.0	190.0	No
Picloram (µg/L) - TW3	2024/01/15	<MDL 1.0	190.0	No
Prometryne (µg/L) - TW1	2024/01/30	<MDL 0.03	1.0	No
Prometryne (µg/L) - TW2	2024/01/15	<MDL 0.03	1.0	No
Prometryne (µg/L) - TW3	2024/01/15	<MDL 0.03	1.0	No
Simazine (µg/L) - TW1	2024/01/30	<MDL 0.01	10.0	No
Simazine (µg/L) - TW2	2024/01/15	<MDL 0.01	10.0	No
Simazine (µg/L) - TW3	2024/01/15	<MDL 0.01	10.0	No
Terbufos (µg/L) - TW1	2024/01/30	<MDL 0.01	1.0	No
Terbufos (µg/L) - TW2	2024/01/15	<MDL 0.01	1.0	No
Terbufos (µg/L) - TW3	2024/01/15	<MDL 0.01	1.0	No
Tetrachloroethylene (µg/L) - TW1	2024/01/30	<MDL 0.35	10.0	No
Tetrachloroethylene (µg/L) - TW2	2024/01/15	<MDL 0.35	10.0	No
Tetrachloroethylene (µg/L) - TW3	2024/01/15	<MDL 0.35	10.0	No
2,3,4,6-Tetrachlorophenol (µg/L) - TW1	2024/01/30	<MDL 0.2	100.0	No
2,3,4,6-Tetrachlorophenol (µg/L) - TW2	2024/01/15	<MDL 0.2	100.0	No
2,3,4,6-Tetrachlorophenol (µg/L) - TW3	2024/01/15	<MDL 0.2	100.0	No
Triallate (µg/L) - TW1	2024/01/30	<MDL 0.01	230.0	No
Triallate (µg/L) - TW2	2024/01/15	<MDL 0.01	230.0	No
Triallate (µg/L) - TW3	2024/01/15	<MDL 0.01	230.0	No
Trichloroethylene (µg/L) - TW1	2024/01/30	<MDL 0.44	5.0	No
Trichloroethylene (µg/L) - TW2	2024/01/15	<MDL 0.44	5.0	No
Trichloroethylene (µg/L) - TW3	2024/01/15	<MDL 0.44	5.0	No
2,4,6-Trichlorophenol (µg/L) - TW1	2024/01/30	<MDL 0.25	5.0	No
2,4,6-Trichlorophenol (µg/L) - TW2	2024/01/15	<MDL 0.25	5.0	No
2,4,6-Trichlorophenol (µg/L) - TW3	2024/01/15	<MDL 0.25	5.0	No
2-methyl-4-chlorophenoxyacetic acid (MCPA) (µg/L) - TW1	2024/01/30	<MDL 0.12	100.0	No
2-methyl-4-chlorophenoxyacetic acid (MCPA) (µg/L) - TW2	2024/01/15	<MDL 0.12	100.0	No
2-methyl-4-chlorophenoxyacetic acid (MCPA) (µg/L) - TW3	2024/01/15	<MDL 0.12	100.0	No
Trifluralin (µg/L) - TW1	2024/01/30	<MDL 0.02	45.0	No
Trifluralin (µg/L) - TW2	2024/01/15	<MDL 0.02	45.0	No

Parameter & Location	Sample Date[6A] (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration (MAC)	Exceedance of MAC
Trifluralin (µg/L) - TW3	2024/01/15	<MDL 0.02	45.0	No
Vinyl Chloride (µg/L) - TW1	2024/01/30	<MDL 0.17	1.0	No
Vinyl Chloride (µg/L) - TW2	2024/01/15	<MDL 0.17	1.0	No
Vinyl Chloride (µg/L) - TW3	2024/01/15	<MDL 0.17	1.0	No
Trihalomethane: Total (µg/L) Annual Average - DW	4 Quarters of 2024	28.25	100.00	No
HAA Total (µg/L) Annual Average - DW	4 Quarters of 2024	5.75	80.00	No

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

Note: TW1= McGeorge Treatment Pumphouse; TW2= Mill Street Treatment Pumphouse; TW3= Brownley Treatment Pumphouse

[6A]Organic Parameters (Schedule 24) are required to be tested every 36 months for a *large municipal residential system, if the system obtains water from a raw water supply that is ground water (O. Reg 170/03 Schedule 13-4.(1b)). The last set of samples was collected and tested in 2024, the next set of samples is scheduled to be collected and tested in 2027.*

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