## **ANNUAL REPORT**

ONTARIO REGULATION 170/03
SECTION 11

# ANGUS DRINKING WATER SYSTEM



### FOR THE PERIOD: JANUARY 1, 2021 – DECEMBER 31, 2021

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



Drinking-Water System Number:
Drinking-Water System Name:
Drinking-Water System Owner:
Drinking-Water System Category:
Drinking-Water System Owner:
Drinking-Water System Category:
Drinking-Water System Owner:
Drinking-Water System Category:

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 web site on the Internet?

Yes

Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.

Summary Report is available for inspection at the Township of Essa Municipal Office at 5786 Simcoe County Road 21, Utopia, Essa Township, ON, L0M 1T0 or on the following website: http://www.essatownship.on.ca

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				
Not Applicable	Not Applicable				

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?

Not Applicable

Indicate how you notified system users that your 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

#### **Description of Drinking-Water System:**

The Angus Drinking Water System, Pumphouses and Storage Works serving the Town of Angus include the Mill Street Pumphouse, McGeorge Pumphouse and Brownley Pumphouse. These facilities supply water through a common distribution system.

#### McGeorge (Centre Street) Pumphouse

The McGeorge Pumphouse is located on Side Road 3 in Angus. Raw Water is supplied from two 203 mm diameter drilled groundwater wells (Well 2 and Well 3) capable of providing up to 2627 m³/day potable water. As groundwater flows out of the (artesian) wells, pumps are automatically activated to add sodium silicate (for iron sequestering) and sodium hypochlorite (for primary disinfection). Treated water is stored in two underground reservoirs with capacities of 95 m³ and 157 m³ respectively. Online monitoring equipment continuously monitors chlorine residual and flow rates, and that data is recorded on a data logger. The recorded data is downloaded periodically and stored on the main server at the OCWA in Wasaga Beach. The system is alarmed for numerous parameters and monitored by Huronia Alarms in Midland, Ontario. This pumphouse is equipped with a 64 kW diesel generator and auto switch over to provide stand by power in the event of a power failure.

#### Mill Street Pumphouse

The Mill Street Pumphouse is located at 28 Mill Street in Angus. Raw Water is supplied from one 610 mm diameter drilled groundwater well (Well 1) that can provide up to 3,927 m<sup>3</sup>/day of potable water. As groundwater is pumped from the well, chemical feed pumps are automatically activated to add sodium silicate (for iron sequestering) and sodium hypochlorite (for primary disinfection). Treated water is stored in two underground reservoirs, with a capacity of 2,500 m<sup>3</sup> and 902 m<sup>3</sup> respectively. Flow is measured before entering the reservoir and as the treated water enters the distribution system. On-line monitoring equipment continuously monitors chlorine residual and flow rates, and that data is recorded on a datalogger. The datalogger is downloaded periodically and stored on the main server at the OCWA office in Wasaga Beach. The system is alarmed for numerous parameters and monitored by Huronia Alarms in Midland, Ontario. This pumphouse is equipped with a 400 kW diesel generator and auto switch over to provide stand by power in the event of a power failure. Note: The Mill Street Water Treatment Plant has received the daily difference of 100 m<sup>3</sup> minus Baxter Water 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/townservices/water-sewer-services

#### Brownley Pumphouse

The Brownley Pumphouse is located on 5th Line just north of Willoughby Road. Raw Water is supplied from two 200 mm and one 150 mm diameter drilled groundwater wells (Well 4, Well 5 and Well 6) capable of providing up to 4,251 m³/day potable water. As groundwater is pumped from the wells, chemical feed pumps are automatically activated to add sodium silicate (for iron sequestering) and sodium hypochlorite (for primary disinfection). Treated water is stored in one (1) underground reservoir, two interconnected cells with a total capacity of 2,500 m³. Flow is measured before entering the reservoir and as the treated water enters the distribution system. Online monitoring equipment continuously monitors chlorine residual and flow rates, and that data is recorded on a datalogger. The datalogger is downloaded periodically and stored on the main server at the OCWA office in Wasaga Beach. The system is alarmed for numerous parameters and monitored by Huronia Alarms in Midland, Ontario. This pumphouse is equipped with a 400 kW diesel generator and auto switch over to provide stand by power in the event of a power failure.

#### List of water treatment chemicals used during the reporting period:

- Sodium Hypochlorite 12% Solution NSF, Primary Disinfection
- Sodium Silicate, NSF, Iron Sequestering

#### Significant expenses incurred to:

- [X] Install required equipment
- [X] Purchase required equipment
- [X] Repair required equipment
- [X] Replace required equipment

#### **Description of significant expenses incurred:**

- 1. Flow Meter Replacement and Install- McGeorge
- 2. Repair of Injector on Genset- McGeorge
- 3. Install sodium silicate QDOS peristaltic metering pump- McGeorge
- 4. Third Party Leak Detection
- 5. General Building Maintenance
- 6. Fire Hydrant Replacement and Painting- Mill Street
- 7. System Swabbing
- 8. Elizabeth Street Culvert Replacement- Mill Street
- 9. Reservoir Cleaning- Brownley
- 10. Alarm panel, panel programming, and dialer repairs- Brownley
- 11. Well pump # 4 lifted cleaned and inspected Brownley

Details on the notices submitted in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 and reported to Spills Action Centre:

Incident Date (yyyy/mm/dd)	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date (yyyy/mm/dd)				
	Not Applicable								

Table 1: Microbiological testing done under the Schedule 11 of Regulation 170/03 during this reporting period.

Location	Number of	_	Range of E. Coli Range of Total or Fecal Results Coliform Results			Number of HPC	_	of HPC ples
	Samples	Min	Max	Min	Max	Samples	Min	Max
Raw - RW1	52	0	0	0	0	N/A	N/A	N/A
Raw - RW2	52	0	0	0	0	N/A	N/A	N/A
Raw - RW3	52	0	0	0	0	N/A	N/A	N/A
Raw - RW4*	46	0	0	0	28	N/A	N/A	N/A
Raw - RW5*	45	0	0	0	0	N/A	N/A	N/A
Raw - RW6*	46	0	0	0	0	N/A	N/A	N/A
Treated - TW1	52	0	0	0	0	52	<10	20
Treated - TW2	52	0	0	0	0	52	<10	80
Treated - TW3	43*	0	0	0	0	43	<10	50
Distribution - DW	246	0	0	0	0	94	0	110

Note:

- RW1 Raw Water Well #2 at McGeorge
- RW2 Raw Water Well #3 at McGeorge
- RW3 Raw Water Well #1 at Mill
- RW4 Raw Water Well #4 at Brownley
- RW5 Raw Water Well #5 at Brownley
- RW6 Raw Water Well #6 at Brownley

TW2 – Treated Water Mill Pumphouse

• TW3 – Treated Water Brownley Pumphouse

\*Brownley Wells were offline due to servicing, raw water samples were not taken during this time.

Table 2: Operational testing done under Schedule 7 of Regulation 170/03 during the period covered by this Annual Report.

Location & Test	Number of	Range o	f Results
LUCALIOII & 1851	Samples	Minimum	Maximum
Turbidity, Raw RW1 (Grab) [NTU]	12	0.15	0.64
Turbidity, Raw RW2 (Grab) [NTU]	12	0.14	0.52
Turbidity, Raw RW3 (Grab) [NTU]	12	0.13	0.9
Turbidity, Raw RW4 (Grab) [NTU]*	11	0.31	0.98
Turbidity, Raw RW5 (Grab) [NTU]*	11	0.15	0.96
Turbidity, Raw RW6 (Grab) [NTU]*	11	0.4	0.98
Free Chlorine Residual, Treated TW1 (Continuous) [mg/L]	8760	0.15	4.99+
Free Chlorine Residual, Treated TW2 (Continuous) [mg/L]	8760	0.34	1.71
Free Chlorine Residual, Treated TW3 (Continuous) [mg/L]	8760	0^	5
Free Chlorine Residual, Treated TW1 (Grab) [mg/L]	164	0.64	2.6
Free Chlorine Residual, Treated TW2 (Grab) [mg/L]	163	0.92	1.75
Free Chlorine Residual, Treated TW3 (Grab) [mg/L]	135	0.91	2.2
Total Chlorine Residual, Treated TW1 (Grab) [mg/L]	164	0.76	2.9
Total Chlorine Residual, Treated TW2 (Grab) [mg/L]	163	1.00	1.88
Total Chlorine Residual, Treated TW3 (Grab) [mg/L]	135	1.06	2.5
Free Chlorine Residual, Distribution (Continuous) [mg/L]	8760	0.20	2.63

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

Table 3: Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order or other legal instrument.

Date of Legal Instrument Issued	Parameter	Date Sampled	Result	Unit of Measure			
Not Applicable							

Table 4: Summary of Inorganic parameters tested during this reporting period or the most recent sample results

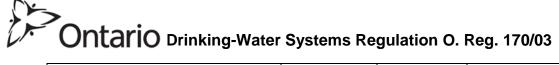
Parameter	Sample Date (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration	Exceedances	
	(yyyy/iiiii/dd)	Nesult	(MAC)	MAC	½ MAC
Antimony: Sb (μg/L) - TW1	2021/01/26	<mdl 0.9<="" td=""><td>6.0</td><td>No</td><td>No</td></mdl>	6.0	No	No

<sup>•</sup> TW1 – Treated Water McGeorge Pumphouse

<sup>\*</sup>Well #4, 5 and 6 were offline due to servicing, turbidity readings were not taken during this time.

<sup>^</sup> Offline due to servicing, repair and maintenance activities.

<sup>+</sup>The maximum treated free chlorine residuals were due to system flushing and calibrations; they were not authentic chlorine residuals that was distributed throughout the system.



Parameter	Sample Date (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration	Exceedances	
	(уууу/ппиаа)	Result	(MAC)	MAC	1/2 MAC
Antimony: Sb (µg/L) - TW2	2021/01/26	<mdl 0.9<="" td=""><td>6.0</td><td>No</td><td>No</td></mdl>	6.0	No	No
Antimony: Sb (µg/L) - TW3	2021/01/26	<mdl 0.9<="" td=""><td>6.0</td><td>No</td><td>No</td></mdl>	6.0	No	No
Arsenic: As (µg/L) - TW1	2021/01/26	0.4	10.0	No	No
Arsenic: As (µg/L) - TW2	2021/01/26	0.7	10.0	No	No
Arsenic: As (µg/L) - TW3	2021/01/26	0.3	10.0	No	No
Barium: Ba (µg/L) - TW1	2021/01/26	86.5	1000.0	No	No
Barium: Ba (µg/L) - TW2	2021/01/26	139.0	1000.0	No	No
Barium: Ba (µg/L) - TW3	2021/01/26	61.1	1000.0	No	No
Boron: B (µg/L) - TW1	2021/01/26	28.0	5000.0	No	No
Boron: B (µg/L) - TW2	2021/01/26	36.0	5000.0	No	No
Boron: B (µg/L) - TW3	2021/01/26	34.0	5000.0	No	No
Cadmium: Cd (μg/L) - TW1	2021/01/26	<mdl 0.003<="" td=""><td>5.0</td><td>No</td><td>No</td></mdl>	5.0	No	No
Cadmium: Cd (µg/L) - TW2	2021/01/26	<mdl 0.003<="" td=""><td>5.0</td><td>No</td><td>No</td></mdl>	5.0	No	No
Cadmium: Cd (µg/L) - TW3	2021/01/26	0.014	5.0	No	No
Chromium: Cr (µg/L) - TW1	2021/01/26	0.24	50.0	No	No
Chromium: Cr (µg/L) - TW2	2021/01/26	0.35	50.0	No	No
Chromium: Cr (µg/L) - TW3	2021/01/26	0.42	50.0	No	No
Mercury: Hg (μg/L) - TW1	2021/01/26	<mdl 0.01<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Mercury: Hg (μg/L) - TW2	2021/01/26	<mdl 0.01<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Mercury: Hg (μg/L) - TW3	2021/01/26	<mdl 0.01<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Selenium: Se (µg/L) - TW1	2021/01/26	<mdl 0.04<="" td=""><td>50.0</td><td>No</td><td>No</td></mdl>	50.0	No	No
Selenium: Se (µg/L) - TW2	2021/01/26	<mdl 0.04<="" td=""><td>50.0</td><td>No</td><td>No</td></mdl>	50.0	No	No
Selenium: Se (µg/L) - TW3	2021/01/26	0.09	50.0	No	No
Uranium: U (μg/L) - TW1	2021/01/26	0.024	20.0	No	No
Uranium: U (µg/L) - TW2	2021/01/26	0.072	20.0	No	No
Uranium: U (µg/L) - TW3	2021/01/26	1.61	20.0	No	No
Fluoride (mg/L) - TW1	2018/07/17	0.21	1.5	No	No
Fluoride (mg/L) - TW2	2018/07/17	0.17	1.5	No	No
Fluoride (mg/L) - TW3	2018/07/17	0.19	1.5	No	No
Nitrite (mg/L) - TW1	2021/01/26	<mdl 0.003<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Nitrite (mg/L) - TW1	2021/05/03	<mdl 0.003<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Nitrite (mg/L) - TW1	2021/07/20	<mdl 0.003<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Nitrite (mg/L) - TW1	2021/10/14	<mdl 0.003<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Nitrite (mg/L) - TW2	2021/01/26	<mdl 0.003<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Nitrite (mg/L) - TW2	2021/05/03	<mdl 0.003<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Nitrite (mg/L) - TW2	2021/07/20	<mdl 0.003<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Nitrite (mg/L) - TW2	2021/10/14	<mdl 0.003<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Nitrite (mg/L) - TW3	2021/01/26	<mdl 0.003<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Nitrite (mg/L) - TW3	2021/05/10	<mdl 0.003<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Nitrite (mg/L) - TW3	2021/07/20	<mdl 0.003<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No

Parameter	Sample Date (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration	Exceedances	
	(yyyy/iiii/du)	Result	(MAC)	MAC	½ MAC
Nitrite (mg/L) - TW3	2021/10/14	<mdl 0.003<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Nitrate (mg/L) - TW1	2021/01/26	0.03	10.0	No	No
Nitrate (mg/L) - TW1	2021/05/03	0.019	10.0	No	No
Nitrate (mg/L) - TW1	2021/07/20	0.022	10.0	No	No
Nitrate (mg/L) - TW1	2021/10/14	0.022	10.0	No	No
Nitrate (mg/L) - TW2	2021/01/26	0.017	10.0	No	No
Nitrate (mg/L) - TW2	2021/05/03	0.013	10.0	No	No
Nitrate (mg/L) - TW2	2021/07/20	0.01	10.0	No	No
Nitrate (mg/L) - TW2	2021/10/14	0.011	10.0	No	No
Nitrate (mg/L) - TW3	2021/01/26	1.88	10.0	No	No
Nitrate (mg/L) - TW3	2021/05/10	2.35	10.0	No	No
Nitrate (mg/L) - TW3	2021/07/20	1.73	10.0	No	No
Nitrate (mg/L) - TW3	2021/10/14	1.83	10.0	No	No
Sodium: Na (mg/L) - TW1	2018/07/17	13.9	20*	N/A	N/A
Sodium: Na (mg/L) - TW2	2018/07/17	17.5	20*	N/A	N/A
Sodium: Na (mg/L) - TW3	2018/07/17	15.6	20*	N/A	N/A

Note: MDL = Minimum Detection Limit

\*There is no "MAC" for Sodium. The aesthetic objective 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. Sodium is sampled and reportable every 60 months. The last Sodium exceedance reported to the MOH was for TW3 in May 2009, resample taken and no further actions advised. Sodium is scheduled to be sampled next in 2023.

Table 5: Summary of lead testing under Schedule 15.1 during this reporting period

Location Type	Number of	Number of Range of Lead Results			Exceedances			
Location Type	Samples	Samples Minimum Maximum		MAC	Exceedances			
Lead – Plumbing (µg/L)	Not A	Not Applicable - Relief from all Plumbing Requirements*						
Lead – Distribution** (µg/L)	8	0.06	0.46	10	0			

Note: The Alkalinity results for 2021 ranged from 161 to 188 mg/L as CaCO<sub>3</sub>. pH results for 2021 ranged from 7.76 to 8.32. The aesthetic objective/operational guideline for pH is 6.5-8.5.

Table 6: Summary of Organic parameters sampled during this reporting period or the most recent sample results

Parameter	Sample Date	Sample	Maximum Allowable	Number of Exceedances	
	(yyyy/mm/dd)	Result	Concentration (MAC)	MAC	½ MAC
Alachlor (µg/L) - TW1	2021/01/26	<mdl 0.02<="" td=""><td>5.0</td><td>No</td><td>No</td></mdl>	5.0	No	No
Alachlor (µg/L) - TW2	2021/01/26	<mdl 0.02<="" td=""><td>5.0</td><td>No</td><td>No</td></mdl>	5.0	No	No
Alachlor (µg/L) - TW3	2021/01/26	<mdl 0.02<="" td=""><td>5.0</td><td>No</td><td>No</td></mdl>	5.0	No	No

<sup>\*</sup>This system qualifies for the plumbing exemption as per O. Regulation 170/03 Schedule 15.1-5 (9) (10). \*\*Distribution lead samples are taken every 36 months, last set of lead sampling was completed in 2021. Next set of lead sampling is scheduled for 2024.

Parameter	Sample Date (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration	Number of Exceedances	
	(yyyy/iiiii/du)	Result	(MAC)	MAC	½ MAC
Atrazine + N-dealkylated metabolites (µg/L) - TW1	2021/01/26	<mdl 0.01<="" td=""><td>5.0</td><td>No</td><td>No</td></mdl>	5.0	No	No
Atrazine + N-dealkylated metabolites (µg/L) - TW2	2021/01/26	<mdl 0.01<="" td=""><td>5.0</td><td>No</td><td>No</td></mdl>	5.0	No	No
Atrazine + N-dealkylated metabolites (µg/L) - TW3	2021/01/26	<mdl 0.01<="" td=""><td>5.0</td><td>No</td><td>No</td></mdl>	5.0	No	No
Azinphos-methyl (µg/L) - TW1	2021/01/26	<mdl 0.05<="" td=""><td>20.0</td><td>No</td><td>No</td></mdl>	20.0	No	No
Azinphos-methyl (μg/L) - TW2	2021/01/26	<mdl 0.05<="" td=""><td>20.0</td><td>No</td><td>No</td></mdl>	20.0	No	No
Azinphos-methyl (µg/L) - TW3	2021/01/26	<mdl 0.05<="" td=""><td>20.0</td><td>No</td><td>No</td></mdl>	20.0	No	No
Benzene (µg/L) - TW1	2021/01/26	<mdl 0.32<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Benzene (µg/L) - TW2	2021/01/26	<mdl 0.32<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Benzene (µg/L) - TW3	2021/01/26	<mdl 0.32<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Benzo(a)pyrene (µg/L) - TW1	2021/01/26	<mdl 0.004<="" td=""><td>0.01</td><td>No</td><td>No</td></mdl>	0.01	No	No
Benzo(a)pyrene (µg/L) - TW2	2021/01/26	<mdl 0.004<="" td=""><td>0.01</td><td>No</td><td>No</td></mdl>	0.01	No	No
Benzo(a)pyrene (µg/L) - TW3	2021/01/26	<mdl 0.004<="" td=""><td>0.01</td><td>No</td><td>No</td></mdl>	0.01	No	No
Bromoxynil (μg/L) - TW1	2021/01/26	<mdl 0.33<="" td=""><td>5.0</td><td>No</td><td>No</td></mdl>	5.0	No	No
Bromoxynil (μg/L) - TW2	2021/01/26	<mdl 0.33<="" td=""><td>5.0</td><td>No</td><td>No</td></mdl>	5.0	No	No
Bromoxynil (µg/L) - TW3	2021/01/26	<mdl 0.33<="" td=""><td>5.0</td><td>No</td><td>No</td></mdl>	5.0	No	No
Carbaryl (µg/L) - TW1	2021/01/26	<mdl 0.05<="" td=""><td>90.0</td><td>No</td><td>No</td></mdl>	90.0	No	No
Carbaryl (µg/L) - TW2	2021/01/26	<mdl 0.05<="" td=""><td>90.0</td><td>No</td><td>No</td></mdl>	90.0	No	No
Carbaryl (µg/L) - TW3	2021/01/26	<mdl 0.05<="" td=""><td>90.0</td><td>No</td><td>No</td></mdl>	90.0	No	No
Carbofuran (µg/L) - TW1	2021/01/26	<mdl 0.01<="" td=""><td>90.0</td><td>No</td><td>No</td></mdl>	90.0	No	No
Carbofuran (µg/L) - TW2	2021/01/26	<mdl 0.01<="" td=""><td>90.0</td><td>No</td><td>No</td></mdl>	90.0	No	No
Carbofuran (µg/L) - TW3	2021/01/26	<mdl 0.01<="" td=""><td>90.0</td><td>No</td><td>No</td></mdl>	90.0	No	No
Carbon Tetrachloride (µg/L) - TW1	2021/01/26	<mdl 0.17<="" td=""><td>2.0</td><td>No</td><td>No</td></mdl>	2.0	No	No
Carbon Tetrachloride (µg/L) - TW2	2021/01/26	<mdl 0.17<="" td=""><td>2.0</td><td>No</td><td>No</td></mdl>	2.0	No	No
Carbon Tetrachloride (µg/L) - TW3	2021/01/26	<mdl 0.17<="" td=""><td>2.0</td><td>No</td><td>No</td></mdl>	2.0	No	No
Chlorpyrifos (µg/L) - TW1	2021/01/26	<mdl 0.02<="" td=""><td>90.0</td><td>No</td><td>No</td></mdl>	90.0	No	No
Chlorpyrifos (µg/L) - TW2	2021/01/26	<mdl 0.02<="" td=""><td>90.0</td><td>No</td><td>No</td></mdl>	90.0	No	No
Chlorpyrifos (µg/L) - TW3	2021/01/26	<mdl 0.02<="" td=""><td>90.0</td><td>No</td><td>No</td></mdl>	90.0	No	No
Diazinon (μg/L) - TW1	2021/01/26	<mdl 0.02<="" td=""><td>20.0</td><td>No</td><td>No</td></mdl>	20.0	No	No
Diazinon (μg/L) - TW2	2021/01/26	<mdl 0.02<="" td=""><td>20.0</td><td>No</td><td>No</td></mdl>	20.0	No	No
Diazinon (µg/L) - TW3	2021/01/26	<mdl 0.02<="" td=""><td>20.0</td><td>No</td><td>No</td></mdl>	20.0	No	No
Dicamba (µg/L) - TW1	2021/01/26	<mdl 0.2<="" td=""><td>120.0</td><td>No</td><td>No</td></mdl>	120.0	No	No
Dicamba (µg/L) - TW2	2021/01/26	<mdl 0.2<="" td=""><td>120.0</td><td>No</td><td>No</td></mdl>	120.0	No	No
Dicamba (µg/L) - TW3	2021/01/26	<mdl 0.2<="" td=""><td>120.0</td><td>No</td><td>No</td></mdl>	120.0	No	No
1,2-Dichlorobenzene (µg/L) - TW1	2021/01/26	<mdl 0.41<="" td=""><td>200.0</td><td>No</td><td>No</td></mdl>	200.0	No	No
1,2-Dichlorobenzene (µg/L) - TW2	2021/01/26	<mdl 0.41<="" td=""><td>200.0</td><td>No</td><td>No</td></mdl>	200.0	No	No
1,2-Dichlorobenzene (µg/L) - TW3	2021/01/26	<mdl 0.41<="" td=""><td>200.0</td><td>No</td><td>No</td></mdl>	200.0	No	No
1,4-Dichlorobenzene (µg/L) - TW1	2021/01/26	<mdl 0.36<="" td=""><td>5.0</td><td>No</td><td>No</td></mdl>	5.0	No	No
1,4-Dichlorobenzene (µg/L) - TW2	2021/01/26	<mdl 0.36<="" td=""><td>5.0</td><td>No</td><td>No</td></mdl>	5.0	No	No



Parameter	Sample Date	Sample	Maximum Allowable	Number of Exceedances	
	(yyyy/mm/dd)	Result	Concentration (MAC)	MAC	½ MAC
1,4-Dichlorobenzene (µg/L) - TW3	2021/01/26	<mdl 0.36<="" td=""><td>5.0</td><td>No</td><td>No</td></mdl>	5.0	No	No
1,2-Dichloroethane (µg/L) - TW1	2021/01/26	<mdl 0.35<="" td=""><td>5.0</td><td>No</td><td>No</td></mdl>	5.0	No	No
1,2-Dichloroethane (µg/L) - TW2	2021/01/26	<mdl 0.35<="" td=""><td>5.0</td><td>No</td><td>No</td></mdl>	5.0	No	No
1,2-Dichloroethane (µg/L) - TW3	2021/01/26	<mdl 0.35<="" td=""><td>5.0</td><td>No</td><td>No</td></mdl>	5.0	No	No
1,1-Dichloroethylene (µg/L) - TW1	2021/01/26	<mdl 0.33<="" td=""><td>14.0</td><td>No</td><td>No</td></mdl>	14.0	No	No
1,1-Dichloroethylene (µg/L) - TW2	2021/01/26	<mdl 0.33<="" td=""><td>14.0</td><td>No</td><td>No</td></mdl>	14.0	No	No
1,1-Dichloroethylene (µg/L) - TW3	2021/01/26	<mdl 0.33<="" td=""><td>14.0</td><td>No</td><td>No</td></mdl>	14.0	No	No
Dichloromethane (Methylene Chloride) (μg/L) - TW1	2021/01/26	<mdl 0.35<="" td=""><td>50.0</td><td>No</td><td>No</td></mdl>	50.0	No	No
Dichloromethane (Methylene Chloride) (μg/L) - TW2	2021/01/26	<mdl 0.35<="" td=""><td>50.0</td><td>No</td><td>No</td></mdl>	50.0	No	No
Dichloromethane (Methylene Chloride) (μg/L) - TW3	2021/01/26	<mdl 0.35<="" td=""><td>50.0</td><td>No</td><td>No</td></mdl>	50.0	No	No
2,4-Dichlorophenol (µg/L) - TW1	2021/01/26	<mdl 0.15<="" td=""><td>900.0</td><td>No</td><td>No</td></mdl>	900.0	No	No
2,4-Dichlorophenol (µg/L) - TW2	2021/01/26	<mdl 0.15<="" td=""><td>900.0</td><td>No</td><td>No</td></mdl>	900.0	No	No
2,4-Dichlorophenol (µg/L) - TW3	2021/01/26	<mdl 0.15<="" td=""><td>900.0</td><td>No</td><td>No</td></mdl>	900.0	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (µg/L) - TW1	2021/01/26	<mdl 0.19<="" td=""><td>100.0</td><td>No</td><td>No</td></mdl>	100.0	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (µg/L) - TW2	2021/01/26	<mdl 0.19<="" td=""><td>100.0</td><td>No</td><td>No</td></mdl>	100.0	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (µg/L) - TW3	2021/01/26	<mdl 0.19<="" td=""><td>100.0</td><td>No</td><td>No</td></mdl>	100.0	No	No
Diclofop-methyl (μg/L) - TW1	2021/01/26	<mdl 0.4<="" td=""><td>9.0</td><td>No</td><td>No</td></mdl>	9.0	No	No
Diclofop-methyl (μg/L) - TW2	2021/01/26	<mdl 0.4<="" td=""><td>9.0</td><td>No</td><td>No</td></mdl>	9.0	No	No
Diclofop-methyl (μg/L) - TW3	2021/01/26	<mdl 0.4<="" td=""><td>9.0</td><td>No</td><td>No</td></mdl>	9.0	No	No
Dimethoate (μg/L) - TW1	2021/01/26	<mdl 0.06<="" td=""><td>20.0</td><td>No</td><td>No</td></mdl>	20.0	No	No
Dimethoate (μg/L) - TW2	2021/01/26	<mdl 0.06<="" td=""><td>20.0</td><td>No</td><td>No</td></mdl>	20.0	No	No
Dimethoate (μg/L) - TW3	2021/01/26	<mdl 0.06<="" td=""><td>20.0</td><td>No</td><td>No</td></mdl>	20.0	No	No
Diquat (μg/L) - TW1	2021/01/26	<mdl 1.0<="" td=""><td>70.0</td><td>No</td><td>No</td></mdl>	70.0	No	No
Diquat (μg/L) - TW2	2021/01/26	<mdl 1.0<="" td=""><td>70.0</td><td>No</td><td>No</td></mdl>	70.0	No	No
Diquat (μg/L) - TW3	2021/01/26	<mdl 1.0<="" td=""><td>70.0</td><td>No</td><td>No</td></mdl>	70.0	No	No
Diuron (μg/L) - TW1	2021/01/26	<mdl 0.03<="" td=""><td>150.0</td><td>No</td><td>No</td></mdl>	150.0	No	No
Diuron (μg/L) - TW2	2021/01/26	<mdl 0.03<="" td=""><td>150.0</td><td>No</td><td>No</td></mdl>	150.0	No	No
Diuron (μg/L) - TW3	2021/01/26	<mdl 0.03<="" td=""><td>150.0</td><td>No</td><td>No</td></mdl>	150.0	No	No
Glyphosate (μg/L) - TW1	2021/01/26	<mdl 1.0<="" td=""><td>280.0</td><td>No</td><td>No</td></mdl>	280.0	No	No
Glyphosate (μg/L) - TW2	2021/01/26	<mdl 1.0<="" td=""><td>280.0</td><td>No</td><td>No</td></mdl>	280.0	No	No
Glyphosate (μg/L) - TW3	2021/01/26	<mdl 1.0<="" td=""><td>280.0</td><td>No</td><td>No</td></mdl>	280.0	No	No
Malathion (μg/L) - TW1	2021/01/26	<mdl 0.02<="" td=""><td>190.0</td><td>No</td><td>No</td></mdl>	190.0	No	No
Malathion (μg/L) - TW2	2021/01/26	<mdl 0.02<="" td=""><td>190.0</td><td>No</td><td>No</td></mdl>	190.0	No	No
Malathion (μg/L) - TW3	2021/01/26	<mdl 0.02<="" td=""><td>190.0</td><td>No</td><td>No</td></mdl>	190.0	No	No
Metolachlor (μg/L) - TW1	2021/01/26	<mdl 0.01<="" td=""><td>50.0</td><td>No</td><td>No</td></mdl>	50.0	No	No
Metolachlor (μg/L) - TW2	2021/01/26	<mdl 0.01<="" td=""><td>50.0</td><td>No</td><td>No</td></mdl>	50.0	No	No
Metolachlor (μg/L) - TW3	2021/01/26	<mdl 0.01<="" td=""><td>50.0</td><td>No</td><td>No</td></mdl>	50.0	No	No



Parameter	Sample Date (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration (MAC)	Number of Exceedances	
				MAC	½ MAC
Metribuzin (μg/L) - TW1	2021/01/26	<mdl 0.02<="" td=""><td>80.0</td><td>No</td><td>No</td></mdl>	80.0	No	No
Metribuzin (µg/L) - TW2	2021/01/26	<mdl 0.02<="" td=""><td>80.0</td><td>No</td><td>No</td></mdl>	80.0	No	No
Metribuzin (μg/L) - TW3	2021/01/26	<mdl 0.02<="" td=""><td>80.0</td><td>No</td><td>No</td></mdl>	80.0	No	No
Monochlorobenzene	2021/01/26	<mdl 0.3<="" td=""><td>80.0</td><td>No</td><td>No</td></mdl>	80.0	No	No
(Chlorobenzene) (µg/L) - TW1  Monochlorobenzene (Chlorobenzene) (µg/L) - TW2	2021/01/26	<mdl 0.3<="" td=""><td>80.0</td><td>No</td><td>No</td></mdl>	80.0	No	No
Monochlorobenzene (Chlorobenzene) (μg/L) - TW3	2021/01/26	<mdl 0.3<="" td=""><td>80.0</td><td>No</td><td>No</td></mdl>	80.0	No	No
Paraquat (µg/L) - TW1	2021/01/26	<mdl 1.0<="" td=""><td>10.0</td><td>No</td><td>No</td></mdl>	10.0	No	No
Paraquat (µg/L) - TW2	2021/01/26	<mdl 1.0<="" td=""><td>10.0</td><td>No</td><td>No</td></mdl>	10.0	No	No
Paraquat (µg/L) - TW3	2021/01/26	<mdl 1.0<="" td=""><td>10.0</td><td>No</td><td>No</td></mdl>	10.0	No	No
PCB (µg/L) - TW1	2021/01/26	<mdl 0.04<="" td=""><td>3.0</td><td>No</td><td>No</td></mdl>	3.0	No	No
PCB (µg/L) - TW2	2021/01/26	<mdl 0.04<="" td=""><td>3.0</td><td>No</td><td>No</td></mdl>	3.0	No	No
PCB (µg/L) - TW3	2021/01/26	<mdl 0.04<="" td=""><td>3.0</td><td>No</td><td>No</td></mdl>	3.0	No	No
Pentachlorophenol (µg/L) - TW1	2021/01/26	<mdl 0.15<="" td=""><td>60.0</td><td>No</td><td>No</td></mdl>	60.0	No	No
Pentachlorophenol (µg/L) - TW2	2021/01/26	<mdl 0.15<="" td=""><td>60.0</td><td>No</td><td>No</td></mdl>	60.0	No	No
Pentachlorophenol (µg/L) - TW3	2021/01/26	<mdl 0.15<="" td=""><td>60.0</td><td>No</td><td>No</td></mdl>	60.0	No	No
Phorate (μg/L) - TW1	2021/01/26	<mdl 0.01<="" td=""><td>2.0</td><td>No</td><td>No</td></mdl>	2.0	No	No
Phorate (μg/L) - TW2	2021/01/26	<mdl 0.01<="" td=""><td>2.0</td><td>No</td><td>No</td></mdl>	2.0	No	No
Phorate (µg/L) - TW3	2021/01/26	<mdl 0.01<="" td=""><td>2.0</td><td>No</td><td>No</td></mdl>	2.0	No	No
Picloram (μg/L) - TW1	2021/01/26	<mdl 1.0<="" td=""><td>190.0</td><td>No</td><td>No</td></mdl>	190.0	No	No
Picloram (µg/L) - TW2	2021/01/26	<mdl 1.0<="" td=""><td>190.0</td><td>No</td><td>No</td></mdl>	190.0	No	No
Picloram (μg/L) - TW3	2021/01/26	<mdl 1.0<="" td=""><td>190.0</td><td>No</td><td>No</td></mdl>	190.0	No	No
Prometryne (µg/L) - TW1	2021/01/26	<mdl 0.03<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Prometryne (μg/L) - TW2	2021/01/26	<mdl 0.03<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Prometryne (μg/L) - TW3	2021/01/26	<mdl 0.03<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Simazine (µg/L) - TW1	2021/01/26	<mdl 0.01<="" td=""><td>10.0</td><td>No</td><td>No</td></mdl>	10.0	No	No
Simazine (µg/L) - TW2	2021/01/26	<mdl 0.01<="" td=""><td>10.0</td><td>No</td><td>No</td></mdl>	10.0	No	No
Simazine (µg/L) - TW3	2021/01/26	<mdl 0.01<="" td=""><td>10.0</td><td>No</td><td>No</td></mdl>	10.0	No	No
Terbufos (µg/L) - TW1	2021/01/26	<mdl 0.01<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Terbufos (µg/L) - TW2	2021/01/26	<mdl 0.01<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Terbufos (µg/L) - TW3	2021/01/26	<mdl 0.01<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Tetrachloroethylene (µg/L) - TW1	2021/01/26	<mdl 0.35<="" td=""><td>10.0</td><td>No</td><td>No</td></mdl>	10.0	No	No
Tetrachloroethylene (µg/L) - TW2	2021/01/26	<mdl 0.35<="" td=""><td>10.0</td><td>No</td><td>No</td></mdl>	10.0	No	No
Tetrachloroethylene (μg/L) - TW3	2021/01/26	<mdl 0.35<="" td=""><td>10.0</td><td>No</td><td>No</td></mdl>	10.0	No	No
2,3,4,6-Tetrachlorophenol (μg/L) - TW1	2021/01/26	<mdl 0.2<="" td=""><td>100.0</td><td>No</td><td>No</td></mdl>	100.0	No	No
2,3,4,6-Tetrachlorophenol (µg/L) - TW2	2021/01/26	<mdl 0.2<="" td=""><td>100.0</td><td>No</td><td>No</td></mdl>	100.0	No	No
2,3,4,6-Tetrachlorophenol (µg/L) - TW3	2021/01/26	<mdl 0.2<="" td=""><td>100.0</td><td>No</td><td>No</td></mdl>	100.0	No	No
Triallate (μg/L) - TW1	2021/01/26	<mdl 0.01<="" td=""><td>230.0</td><td>No</td><td>No</td></mdl>	230.0	No	No

Parameter	Sample Date	Sample	Maximum Allowable	Number of Exceedances	
	(yyyy/mm/dd)	Result	Concentration (MAC)	MAC	½ MAC
Triallate (µg/L) - TW2	2021/01/26	<mdl 0.01<="" td=""><td>230.0</td><td>No</td><td>No</td></mdl>	230.0	No	No
Triallate (µg/L) - TW3	2021/01/26	<mdl 0.01<="" td=""><td>230.0</td><td>No</td><td>No</td></mdl>	230.0	No	No
Trichloroethylene (µg/L) - TW1	2021/01/26	<mdl 0.44<="" td=""><td>5.0</td><td>No</td><td>No</td></mdl>	5.0	No	No
Trichloroethylene (µg/L) - TW2	2021/01/26	<mdl 0.44<="" td=""><td>5.0</td><td>No</td><td>No</td></mdl>	5.0	No	No
Trichloroethylene (µg/L) - TW3	2021/01/26	<mdl 0.44<="" td=""><td>5.0</td><td>No</td><td>No</td></mdl>	5.0	No	No
2,4,6-Trichlorophenol (µg/L) - TW1	2021/01/26	<mdl 0.25<="" td=""><td>5.0</td><td>No</td><td>No</td></mdl>	5.0	No	No
2,4,6-Trichlorophenol (µg/L) - TW2	2021/01/26	<mdl 0.25<="" td=""><td>5.0</td><td>No</td><td>No</td></mdl>	5.0	No	No
2,4,6-Trichlorophenol (µg/L) - TW3	2021/01/26	<mdl 0.25<="" td=""><td>5.0</td><td>No</td><td>No</td></mdl>	5.0	No	No
2-methyl-4-chlorophenoxyacetic acid (MCPA) (µg/L) - TW1	2021/01/26	<mdl 0.12<="" td=""><td>100.0</td><td>No</td><td>No</td></mdl>	100.0	No	No
2-methyl-4-chlorophenoxyacetic acid (MCPA) (µg/L) - TW2	2021/01/26	<mdl 0.12<="" td=""><td>100.0</td><td>No</td><td>No</td></mdl>	100.0	No	No
2-methyl-4-chlorophenoxyacetic acid (MCPA) (µg/L) - TW3	2021/01/26	<mdl 0.12<="" td=""><td>100.0</td><td>No</td><td>No</td></mdl>	100.0	No	No
Trifluralin (μg/L) - TW1	2021/01/26	<mdl 0.02<="" td=""><td>45.0</td><td>No</td><td>No</td></mdl>	45.0	No	No
Trifluralin (μg/L) - TW2	2021/01/26	<mdl 0.02<="" td=""><td>45.0</td><td>No</td><td>No</td></mdl>	45.0	No	No
Trifluralin (μg/L) - TW3	2021/01/26	<mdl 0.02<="" td=""><td>45.0</td><td>No</td><td>No</td></mdl>	45.0	No	No
Vinyl Chloride (μg/L) - TW1	2021/01/26	<mdl 0.17<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Vinyl Chloride (µg/L) - TW2	2021/01/26	<mdl 0.17<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Vinyl Chloride (µg/L) - TW3	2021/01/26	<mdl 0.17<="" td=""><td>1.0</td><td>No</td><td>No</td></mdl>	1.0	No	No
Trihalomethane: Total Annual Average (µg/L) - DW	4 Quarters of 2021	30.25	100.00	No	No
Haloacetic Acid: Total Annual Average (μg/L) - DW	4 Quarters of 2021	5.3	80.00	No	No

Note: MDL = Minimum Detection Limit

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

Parameter	Result	Unit of	Date of
	Value	Measure	Sample
Not Applicable			