2023 SECTION 11 ANNUAL REPORT

WECA DRINKING WATER SYSTEM

For the period of
January 1st, 2023 to December 31st, 2023

Prepared for the Corporation of the Township of Adjala-Tosorontio
by the Ontario Clean Water Agency

Township of Adjala-Tosorontio

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:	220010048
Drinking Water System Name:	Weca Drinking Water System
Drinking Water System Owner:	The Corporation of the Township of Adjala-Tosorontio
Drinking Water System Category:	Large Municipal Residential
Reporting Period:	January 1, 2023 to December 31, 2023

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

No

Is the 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)(f)):*

- Township of Adjala-Tosorontio Municipal Office, 7855 Side Road 30, Alliston, ON
- http://www.adjtos.ca

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 the system:

Drinking Water System Name	Drinking Water System Number
N/A	N/A

Is a copy of the annual report provided to all Drinking Water System owners that are connected to this system and to whom this system provides all of its drinking water?

N/A

How system users are notified that the annual report is available, and is free of charge. *(O.Reg 170/03, Section 11.(7))*

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 Weca Drinking Water System is classified as a Large Municipal Residential, Class 1 Water Distribution and Supply Subsystem, servicing an approximate population of 417 persons through 143 service connections, in the Village of Loretto, Township of Adjala-Tosorontio. Source water is ground water drawn from three (3) municipal wells at three (3) separate pumphouses drilled into a confined aquifer. The former Loretto Heights Drinking Water System was a separate and independent system until it was connected to the Weca DWS on December 14, 2018. Combined they were hereafter referred to as the Weca Drinking Water System.

Weca Well No. 1 Pumphouse
Services well water drawn from one well (PW1). Treatment consists of chlorination with contact time, provided by a dedicated chlorine contact main at the pumphouse, for both primary and secondary disinfection.

Weca Well No. 2 Pumphouse
Services well water drawn from one well (PW2). Treatment consists of chlorination with contact time, provided by a dedicated chlorine contact main at the pumphouse, for both primary and secondary disinfection. During power failures, a stand-by diesel generator outside the pumping station supplies the works with power.

Weca Well No. 3 Pumphouse-Loretto Heights
Services well water drawn from one well (PW1-Loretto Heights) and treatment consists of chlorination with contact time, provided by a dedicated chlorine contact main at the pumphouse, for both primary and secondary disinfection. During power failures, a stand-by diesel generator outside the pumping station supplies the works with power. As of September, 2022 Weca Well No. 3 (and pumphouse) has been offline. Therefore Well 3 has not supplied the system with raw or treated water. The old well (PW1-Loretto Heights) that was supplying the system is in process of being decommissioned. In 2023, a new well was drilled and is undergoing approvals in order to be placed into service. Anticipated start-up is 2024.

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

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)):*

- Distribution System: System swabbing and repairs
- Chemical pump rebuild kits
- Free chlorine analyzer replacement, to be installed in 2024 in Weca Pumphouse 1
- Weca Pumphouse 2- Pressure tanks (2) replacement and installation
- Air relief valve installation
- Weca Pumphouse 1- Meter repairs
- Weca Pumphouse 2- New Day tank- replacement and installation
- Weca Pumphouse 1- Piping repairs
- Weca Pumphouse 1- Meter replacement
- Weca Pumphouse 2- Lighting replacements
- Weca Pumphouse 3- Drilling of new production well, to be commissioned in 2024

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	Reporting Summary, Corrective Actions & Resolution
N/A	N/A	N/A	N/A

Table 1. Microbiological testing done under the Schedule 10, 11 or 12 (as applicable) of O.Reg 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.
RW1, PW1[1A]	48[1D]	0	0	0	10	N/A	N/A	N/A
RW2, PW2[1A]	52	0	0	0	0	N/A	N/A	N/A
RW3, PW1-Loretto Heights[1A]	2[1E]	0	0	0	0	N/A	N/A	N/A
TW1, Weca 1[1B]	52	0	0	0	0	52	<10	10

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.
TW2, Weca 2[1B]	52	0	0	0	0	52	<10	10
TW3, Weca 3[1B]	35[1F]	0	0	0	0	35	<10	20
Distribution[1C]	104	0	0	0	0	51	<10	10

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] RW1= Weca Well #1 (PW1) Raw Water; Weca Well #2 (PW2) Raw Water; Weca Well #3 (PW1-Loretto Heights) Raw Water. 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]TW1= Weca Well #1 Pumphouse; TW2= Treated Water Weca Well No. 2 Pumphouse; TW3= Treated Water Weca Well No. 3 Loretto Heights 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 202*3*, the population served by the Weca Drinking Water System is 417 persons via 143 private service connections* (as *confirmed by the owner on* November 9, 2022) *and thus requires at the minimum eight (8) monthly distribution samples.*

[1D]No raw water samples were collected for the weeks of May 15, 23, 29 and June 5, 2023- Well 1 (PW1) was offline for maintenance and repairs.

[1E]On August 28, 2022 Weca Well 3 was taken offline. In 2023, no raw water samples were collected for Weca Well #3 (PW1 Loretto Heights) since the week of January 9.

[1F]August 28, 2022 Weca Well 3 was taken offline. No samples for treated water have been taken since the week of August 28, 2023. The samples (35) taken this year were proactive sampling but not required as the treated water was not being conveyed to the distribution system.

Table 2. Operational testing done under Schedule 7, 8 or 9 (as applicable) O. Reg 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, In-House (NTU) – RW1, PW1[2A]	12	0.18	0.51
Turbidity, In-House (NTU) – RW2, PW2[2A]	12	0.22	0.83
Turbidity, In-House (NTU) – RW3, PW1-Loretto Heights[2A]	2[2D]	0.17	0.17
Free Chlorine Residual, On-Line (mg/L) – TW1- Weca No. 1[2B]	8760	0.00[2E]	4.99[2F]
Free Chlorine Residual, On-Line (mg/L) – TW2- Weca No. 2[2B]	8760	0.17[2G]	5.00[2H]
Free Chlorine Residual, On-Line (mg/L) – TW3- Weca No. 3 (Loretto Heights)[2B]	8760	0.61	2.56
Free Chlorine Residual, DW Field (mg/L) – Distribution Water[2C]	358	0.52	3.8

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)(4) 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.

[2D]August 28, 2022 Weca Well 3 was taken offline. No monthly raw water turbidity samples have been taken since February. 2023.

[2E]On August 22 and October 4, 2023 – Low treated water free chlorine residuals occurred due to a low chlorine alarm. The well locked out at 0.50 mg/L, no adverse water was directed to users- CT was met. For 2023, the lowest treated water free chlorine residual for TW1 outside of these events was 0.79 mg/L.

[2F]March 4 and July 25, 2023 – power outages caused a chlorine analyzer failure, reboot shows a high free chlorine.

[2G]August 17, 2023- Low treated water free chlorine residuals occurred due to a low chlorine alarm. The well locked out at 0.50 mg/L, no adverse water was directed to users- Ct was met.

[2H]June 30, 2023 & July 1, 2023 pressure transducer failure caused continuous well run and high pressure. Higher pressure caused lower water flow rate. Lower water flow caused higher sodium hypochlorite dosage and high treated water free chlorine residual.

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 during the reporting period and if tests required under this Regulation in respect of a parameter were not required during that period, summarize the most recent results of tests of that parameter *(O. Reg 170/03, Section 11.(6)(c)):*

Legal Instrument & Issue Date (yyyy/mm/dd)	Sample Location & Parameter	Sampling Frequency	Allowable Result	Actual Result
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	2021/01/25	<MDL 0.9	6.0	No
Antimony: Sb (µg/L) – TW2	2021/02/16	<MDL 0.9	6.0	No
Antimony: Sb (µg/L) – TW3	2021/01/25	<MDL 0.9	6.0	No
Arsenic: As (µg/L) - TW1	2022/04/19[4D]	2.3	10.0	No
Arsenic: As (µg/L) - TW2	2023/04/17[4D]	2.0	10.0	No
Arsenic: As (µg/L) - TW3	2022/07/18[4D]	2.5	10.0	No
Barium: Ba (µg/L) – TW1	2021/01/25	143.0	1000.0	No
Barium: Ba (µg/L) – TW2	2021/02/16	154.0	1000.0	No
Barium: Ba (µg/L) – TW3	2021/01/25	102.0	1000.0	No
Boron: B (µg/L) – TW1	2021/01/25	98.0	5000.0	No
Boron: B (µg/L) – TW2	2021/02/16	121.0	5000.0	No
Boron: B (µg/L) – TW3	2021/01/25	139.0	5000.0	No
Cadmium: Cd (µg/L) – TW1	2021/01/25	<MDL 0.003	5.0	No
Cadmium: Cd (µg/L) – TW2	2021/02/16	<MDL 0.003	5.0	No
Cadmium: Cd (µg/L) – TW3	2021/01/25	0.005	5.0	No
Chromium: Cr (µg/L) – TW1	2021/05/10	<MDL 0.08	50.0	No
Chromium: Cr (µg/L) – TW2	2021/05/10	<MDL 0.08	50.0	No
Chromium: Cr (µg/L) – TW3	2021/05/10	<MDL 0.08	50.0	No
Mercury: Hg (µg/L) – TW1	2021/01/25	<MDL 0.01	1.0	No
Mercury: Hg (µg/L) – TW2	2021/02/16	<MDL 0.01	1.0	No
Mercury: Hg (µg/L) – TW3	2021/01/25	<MDL 0.01	1.0	No
Selenium: Se (µg/L) – TW1	2021/01/25	<MDL 0.04	50.0	No
Selenium: Se (µg/L) – TW2	2021/02/16	1.32	50.0	No
Selenium: Se (µg/L) – TW3	2021/01/25	<MDL 0.04	50.0	No
Uranium: U (µg/L) – TW1	2021/01/25	0.068	20.0	No

Parameter & Location	Sample Date[4A] (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration (MAC)	Exceedance of MAC
Uranium: U (µg/L) – TW2	2021/02/16	0.043	20.0	No
Uranium: U (µg/L) – TW3	2021/01/25	0.009	20.0	No
Fluoride (mg/L) – TW1	2022/01/18[4B]	0.22[4B]	1.5	No
Fluoride (mg/L) – TW2	2022/01/18[4B]	0.25[4B]	1.5	No
Fluoride (mg/L) – TW3	2022/01/18[4B]	0.33[4B]	1.5	No
Nitrite (mg/L) - TW1	2023/01/18	<MDL 0.003	1.0	No
Nitrite (mg/L) - TW1	2023/04/17	<MDL 0.003	1.0	No
Nitrite (mg/L) - TW1	2023/07/24	<MDL 0.003	1.0	No
Nitrite (mg/L) - TW1	2023/10/16	<MDL 0.003	1.0	No
Nitrite (mg/L) - TW2	2023/01/23	<MDL 0.003	1.0	No
Nitrite (mg/L) - TW2	2023/04/17	<MDL 0.003	1.0	No
Nitrite (mg/L) - TW2	2023/07/24	<MDL 0.003	1.0	No
Nitrite (mg/L) - TW2	2023/10/16	<MDL 0.003	1.0	No
Nitrite (mg/L) - TW3	2023/01/23	<MDL 0.003	1.0	No
Nitrite (mg/L) - TW3	2023/04/17	<MDL 0.003	1.0	No
Nitrite (mg/L) - TW3	2023/07/24	<MDL 0.003	1.0	No
Nitrite (mg/L) - TW3	2023/10/16	<MDL 0.003	1.0	No
Nitrate (mg/L) - TW1	2023/01/23	0.01	10.0	No
Nitrate (mg/L) - TW1	2023/04/17	0.014	10.0	No
Nitrate (mg/L) - TW1	2023/07/24	0.014	10.0	No
Nitrate (mg/L) - TW1	2023/10/16	0.016	10.0	No
Nitrate (mg/L) - TW2	2023/01/23	0.011	10.0	No
Nitrate (mg/L) - TW2	2023/04/17	0.015	10.0	No
Nitrate (mg/L) - TW2	2023/07/24	0.014	10.0	No
Nitrate (mg/L) - TW2	2023/10/16	0.016	10.0	No
Nitrate (mg/L) - TW3	2023/01/23	0.009	10.0	No
Nitrate (mg/L) - TW3	2023/04/17	0.018	10.0	No
Nitrate (mg/L) - TW3	2023/07/24	0.014	10.0	No
Nitrate (mg/L) - TW3	2023/10/16	0.016	10.0	No

Parameter & Location	Sample Date (yyyy/mm/dd)	Sample Result	Aesthetic Objective (AO)	Exceedance	
				AO	> 20 mg/L
Sodium: Na (mg/L) – TW1	2023/01/23[4C]	48.4	200	No	Yes[4C]
Sodium: Na (mg/L) – TW2	2023/01/23[4C]	54.5	200	No	Yes[4C]
Sodium: Na (mg/L) – TW3	2023/01/23[4C]	49.6	200	No	Yes[4C]

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

[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 2021, the next set of samples is scheduled to be collected and tested in 2024.

[4B]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.

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.

[4C]Sodium is reportable every 60 months. The most recent reportable Sodium samples were collected and tested in 2021, the next set of reportable samples is scheduled to be tested in 2026. At the request of the NVCA, annual sodium sampling for monitoring purposes has been initiated at the Weca DWS for each TW source. Samples taken in 2023 are shown in the table above. These samples are not reportable as there has been a report in the past 57-months. In 2022, AWQI#157705 at TW1, AWQI#157707 at TW2 and AWQI#157708 at TW3 were reported to the MOH, MECP and SAC as adverse water quality incidents on January 25, 2022 for sodium with results of 47.4 mg/L, 55.5 mg/L and 51.3 mg/L respectively.

[4D]Due to the May, 2021, 36-month Inorganic parameter testing resulting in an arsenic MAC exceedance, Weca Drinking Water System was undergoing additional treated water sampling and testing. In 2022, there were no MAC exceedances. October 18, 2022, a half MAC exceedance occurred at Weca 2-TW2 Pumphouse. As per the regulations, additional samples January 23, 2023 and April 17, 2023 results were below the MAC (10.0 µg/L) and Half MAC threshold (5.0 µg/L)- 4.1 µg/L and 2.0 µg/L respectively. As of April 24, 2023, the MOH and MECP confirmed additional TW arsenic sampling could cease at the Weca DWS.

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
		Min.	Max.	MAC = 10 µ/L
Period: January 1 to April 15				
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 $CaCO_3$)	2	200	211	N/A
Distribution – pH	2	7.84	7.86	N/A
Period: June 15 to October 15				
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 $CaCO_3$)	2	187	189	N/A
Distribution – pH	2	7.55	7.98	N/A
Period: December 15 to 31				
Plumbing – Lead (µg/L)[5B]	N/A	N/A	N/A	0

Location/Type & Parameter	Number of Samples[5A]	Range of Results		Number of Lead Exceedances
		Min.	Max.	MAC = 10 µ/L
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. As of 2023, the population served by the Weca Drinking Water is 417 persons via 143 private service connections, confirmed by the owner on November 9, 2022. Therefore two (2) distribution sampling points per sampling period are required .

[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, 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.

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	2021/01/25	<MDL 0.02	5.0	No
Alachlor (µg/L) - TW2	2021/02/16	<MDL 0.02	5.0	No
Alachlor (µg/L) - TW3	2021/01/25	<MDL 0.02	5.0	No
Atrazine + N-dealkylated metabolites (µg/L) - TW1	2021/01/25	<MDL 0.01	5.0	No
Atrazine + N-dealkylated metabolites (µg/L) - TW2	2021/02/16	<MDL 0.01	5.0	No
Atrazine + N-dealkylated metabolites (µg/L) - TW3	2021/01/25	<MDL 0.01	5.0	No
Azinphos-methyl (µg/L) - TW1	2021/01/25	<MDL 0.05	20.0	No
Azinphos-methyl (µg/L) - TW2	2021/02/16	<MDL 0.05	20.0	No
Azinphos-methyl (µg/L) - TW3	2021/01/25	<MDL 0.05	20.0	No
Benzene (µg/L) - TW1	2021/01/25	<MDL 0.32	1.0	No
Benzene (µg/L) - TW2	2021/02/16	<MDL 0.32	1.0	No
Benzene (µg/L) - TW3	2021/01/25	<MDL 0.32	1.0	No
Benzo(a)pyrene (µg/L) - TW1	2021/01/25	<MDL 0.004	0.01	No

Parameter & Location	Sample Date[6A] (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration (MAC)	Exceedance of MAC
Benzo(a)pyrene (µg/L) - TW2	2021/02/16	<MDL 0.004	0.01	No
Benzo(a)pyrene (µg/L) - TW3	2021/01/25	<MDL 0.004	0.01	No
Bromoxynil (µg/L) - TW1	2021/01/25	<MDL 0.33	5.0	No
Bromoxynil (µg/L) - TW2	2021/02/16	<MDL 0.33	5.0	No
Bromoxynil (µg/L) - TW3	2021/01/25	<MDL 0.33	5.0	No
Carbaryl (µg/L) - TW1	2021/01/25	<MDL 0.05	90.0	No
Carbaryl (µg/L) - TW2	2021/02/16	<MDL 0.05	90.0	No
Carbaryl (µg/L) - TW3	2021/01/25	<MDL 0.05	90.0	No
Carbofuran (µg/L) - TW1	2021/01/25	<MDL 0.01	90.0	No
Carbofuran (µg/L) - TW2	2021/02/16	<MDL 0.01	90.0	No
Carbofuran (µg/L) - TW3	2021/01/25	<MDL 0.01	90.0	No
Carbon Tetrachloride (µg/L) - TW1	2021/01/25	<MDL 0.17	2.0	No
Carbon Tetrachloride (µg/L) - TW2	2021/02/16	<MDL 0.17	2.0	No
Carbon Tetrachloride (µg/L) - TW3	2021/01/25	<MDL 0.17	2.0	No
Chlorpyrifos (µg/L) - TW1	2021/01/25	<MDL 0.02	90.0	No
Chlorpyrifos (µg/L) - TW2	2021/02/16	<MDL 0.02	90.0	No
Chlorpyrifos (µg/L) - TW3	2021/01/25	<MDL 0.02	90.0	No
Diazinon (µg/L) - TW1	2021/01/25	<MDL 0.02	20.0	No
Diazinon (µg/L) - TW2	2021/02/16	<MDL 0.02	20.0	No
Diazinon (µg/L) - TW3	2021/01/25	<MDL 0.02	20.0	No
Dicamba (µg/L) - TW1	2021/01/25	<MDL 0.2	120.0	No
Dicamba (µg/L) - TW2	2021/02/16	<MDL 0.2	120.0	No
Dicamba (µg/L) - TW3	2021/01/25	<MDL 0.2	120.0	No
1,2-Dichlorobenzene (µg/L) - TW1	2021/01/25	<MDL 0.41	200.0	No
1,2-Dichlorobenzene (µg/L) - TW2	2021/02/16	<MDL 0.41	200.0	No
1,2-Dichlorobenzene (µg/L) - TW3	2021/01/25	<MDL 0.41	200.0	No
1,4-Dichlorobenzene (µg/L) - TW1	2021/01/25	<MDL 0.36	5.0	No
1,4-Dichlorobenzene (µg/L) - TW2	2021/02/16	<MDL 0.36	5.0	No
1,4-Dichlorobenzene (µg/L) - TW3	2021/01/25	<MDL 0.36	5.0	No
1,2-Dichloroethane (µg/L)- TW1	2021/01/25	<MDL 0.35	5.0	No
1,2-Dichloroethane (µg/L)- TW2	2021/02/16	<MDL 0.35	5.0	No
1,2-Dichloroethane (µg/L)- TW3	2021/01/25	<MDL 0.35	5.0	No

Parameter & Location	Sample Date[6A] (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration (MAC)	Exceedance of MAC
1,1-Dichloroethylene (µg/L) - TW1	2021/01/25	<MDL 0.33	14.0	No
1,1-Dichloroethylene (µg/L) - TW2	2021/02/16	<MDL 0.33	14.0	No
1,1-Dichloroethylene (µg/L) - TW3	2021/01/25	<MDL 0.33	14.0	No
Dichloromethane (Methylene Chloride) (µg/L) - TW1	2021/01/25	<MDL 0.35	50.0	No
Dichloromethane (Methylene Chloride) (µg/L) - TW2	2021/02/16	<MDL 0.35	50.0	No
Dichloromethane (Methylene Chloride) (µg/L) - TW3	2021/01/25	<MDL 0.35	50.0	No
2,4-Dichlorophenol (µg/L) - TW1	2021/01/25	<MDL 0.15	900.0	No
2,4-Dichlorophenol (µg/L) - TW2	2021/02/16	<MDL 0.15	900.0	No
2,4-Dichlorophenol (µg/L) - TW3	2021/01/25	<MDL 0.15	900.0	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (µg/L) - TW1	2021/01/25	<MDL 0.19	100.0	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (µg/L) - TW2	2021/02/16	<MDL 0.19	100.0	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (µg/L) - TW3	2021/01/25	<MDL 0.19	100.0	No
Diclofop-methyl (µg/L) - TW1	2021/01/25	<MDL 0.4	9.0	No
Diclofop-methyl (µg/L) - TW2	2021/02/16	<MDL 0.4	9.0	No
Diclofop-methyl (µg/L) - TW3	2021/01/25	<MDL 0.4	9.0	No
Dimethoate (µg/L) - TW1	2021/01/25	<MDL 0.06	20.0	No
Dimethoate (µg/L) - TW2	2021/02/16	<MDL 0.06	20.0	No
Dimethoate (µg/L) - TW3	2021/01/25	<MDL 0.06	20.0	No
Diquat (µg/L) - TW1	2021/01/25	<MDL 1.0	70.0	No
Diquat (µg/L) - TW2	2021/02/16	<MDL 1.0	70.0	No
Diquat (µg/L) - TW3	2021/01/25	<MDL 1.0	70.0	No
Diuron (µg/L) - TW1	2021/01/25	<MDL 0.03	150.0	No
Diuron (µg/L) - TW2	2021/02/16	<MDL 0.03	150.0	No
Diuron (µg/L) - TW3	2021/01/25	<MDL 0.03	150.0	No
Glyphosate (µg/L) - TW1	2021/01/25	<MDL 1.0	280.0	No
Glyphosate (µg/L) - TW2	2021/02/16	<MDL 1.0	280.0	No
Glyphosate (µg/L) - TW3	2021/01/25	<MDL 1.0	280.0	No
Malathion (µg/L) - TW1	2021/01/25	<MDL 0.02	190.0	No
Malathion (µg/L) - TW2	2021/02/16	<MDL 0.02	190.0	No
Malathion (µg/L) - TW3	2021/01/25	<MDL 0.02	190.0	No
Metolachlor (µg/L) - TW1	2021/01/25	<MDL 0.01	50.0	No
Metolachlor (µg/L) - TW2	2021/02/16	<MDL 0.01	50.0	No

Parameter & Location	Sample Date[6A] (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration (MAC)	Exceedance of MAC
Metolachlor (µg/L) - TW3	2021/01/25	<MDL 0.01	50.0	No
Metribuzin (µg/L) - TW1	2021/01/25	<MDL 0.02	80.0	No
Metribuzin (µg/L) - TW2	2021/02/16	<MDL 0.02	80.0	No
Metribuzin (µg/L) - TW3	2021/01/25	<MDL 0.02	80.0	No
Monochlorobenzene (Chlorobenzene) (µg/L) - TW1	2021/01/25	<MDL 0.3	80.0	No
Monochlorobenzene (Chlorobenzene) (µg/L) - TW2	2021/02/16	<MDL 0.3	80.0	No
Monochlorobenzene (Chlorobenzene) (µg/L) - TW3	2021/01/25	<MDL 0.3	80.0	No
Paraquat (µg/L) - TW1	2021/01/25	<MDL 1.0	10.0	No
Paraquat (µg/L) - TW2	2021/02/16	<MDL 1.0	10.0	No
Paraquat (µg/L) - TW3	2021/01/25	<MDL 1.0	10.0	No
PCB (µg/L) - TW1	2021/01/25	<MDL 0.04	3.0	No
PCB (µg/L) - TW2	2021/02/16	<MDL 0.04	3.0	No
PCB (µg/L) - TW3	2021/01/25	<MDL 0.04	3.0	No
Pentachlorophenol (µg/L) - TW1	2021/01/25	<MDL 0.15	60.0	No
Pentachlorophenol (µg/L) - TW2	2021/02/16	<MDL 0.15	60.0	No
Pentachlorophenol (µg/L) - TW3	2021/01/25	<MDL 0.15	60.0	No
Phorate (µg/L) - TW1	2021/01/25	<MDL 0.01	2.0	No
Phorate (µg/L) - TW2	2021/02/16	<MDL 0.01	2.0	No
Phorate (µg/L) - TW3	2021/01/25	<MDL 0.01	2.0	No
Picloram (µg/L) - TW1	2021/01/25	<MDL 1.0	190.0	No
Picloram (µg/L) - TW2	2021/02/16	<MDL 1.0	190.0	No
Picloram (µg/L) - TW3	2021/01/25	<MDL 1.0	190.0	No
Prometryne (µg/L) - TW1	2021/01/25	<MDL 0.03	1.0	No
Prometryne (µg/L) - TW2	2021/02/16	<MDL 0.03	1.0	No
Prometryne (µg/L) - TW3	2021/01/25	<MDL 0.03	1.0	No
Simazine (µg/L) - TW1	2021/01/25	<MDL 0.01	10.0	No
Simazine (µg/L) - TW2	2021/02/16	<MDL 0.01	10.0	No
Simazine (µg/L) - TW3	2021/01/25	<MDL 0.01	10.0	No
Terbufos (µg/L) - TW1	2021/01/25	<MDL 0.01	1.0	No
Terbufos (µg/L) - TW2	2021/02/16	<MDL 0.01	1.0	No
Terbufos (µg/L) - TW3	2021/01/25	<MDL 0.01	1.0	No
Tetrachloroethylene (µg/L) - TW1	2021/01/25	<MDL 0.35	10.0	No
Tetrachloroethylene (µg/L) - TW2	2021/02/16	<MDL 0.35	10.0	No
Tetrachloroethylene (µg/L) - TW3	2021/01/25	<MDL 0.35	10.0	No
2,3,4,6-Tetrachlorophenol (µg/L) - TW1	2021/01/25	<MDL 0.2	100.0	No
2,3,4,6-Tetrachlorophenol (µg/L) - TW2	2021/02/16	<MDL 0.2	100.0	No

Parameter & Location	Sample Date[6A] (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration (MAC)	Exceedance of MAC
2,3,4,6-Tetrachlorophenol (µg/L) - TW3	2021/01/25	<MDL 0.2	100.0	No
Triallate (µg/L) - TW1	2021/01/25	<MDL 0.01	230.0	No
Triallate (µg/L) - TW2	2021/02/16	<MDL 0.01	230.0	No
Triallate (µg/L) - TW3	2021/01/25	<MDL 0.01	230.0	No
Trichloroethylene (µg/L) - TW1	2021/01/25	<MDL 0.44	5.0	No
Trichloroethylene (µg/L) - TW2	2021/02/16	<MDL 0.44	5.0	No
Trichloroethylene (µg/L) - TW3	2021/01/25	<MDL 0.44	5.0	No
2,4,6-Trichlorophenol (µg/L) - TW1	2021/01/25	<MDL 0.25	5.0	No
2,4,6-Trichlorophenol (µg/L) - TW2	2021/02/16	<MDL 0.25	5.0	No
2,4,6-Trichlorophenol (µg/L) - TW3	2021/01/25	<MDL 0.25	5.0	No
2-methyl-4-chlorophenoxyacetic acid (MCPA) (µg/L) - TW1	2021/02/16	<MDL 0.12	100.0	No
2-methyl-4-chlorophenoxyacetic acid (MCPA) (µg/L) - TW2	2021/02/16	<MDL 0.12	100.0	No
2-methyl-4-chlorophenoxyacetic acid (MCPA) (µg/L) - TW3	2021/01/25	<MDL 0.12	100.0	No
Trifluralin (µg/L) - TW1	2021/01/25	<MDL 0.02	45.0	No
Trifluralin (µg/L) - TW2	2021/02/16	<MDL 0.02	45.0	No
Trifluralin (µg/L) - TW3	2021/01/25	<MDL 0.02	45.0	No
Vinyl Chloride (µg/L) - TW1	2001/25/21	<MDL 0.17	1.0	No
Vinyl Chloride (µg/L) - TW2	2021/02/16	<MDL 0.17	1.0	No
Vinyl Chloride (µg/L) - TW3	2021/01/25	<MDL 0.17	1.0	No
Trihalomethane: Total (µg/L) Annual Average - DW	2023 (Quarterly)	72.5	100.0	No
HAA Total (µg/L) Annual Average - DW	2023 (Quarterly)	7.9	80.0	No

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

Note: TW1 = Weca No.1 Pumphouse; TW2 Weca No. 2 Pumphouse; TW3 refers Weca No. 3- Loretto Heights 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 2021, the next set of samples is 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
Trihalomethane: Total (µg/L) Annual Average - DW	2023 (Quarterly)	72.5