

# Woodfield Drinking Water System

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Waterworks # 220012251  
System Category – Small Municipal Residential

## Annual Water Report

Prepared For: The City of Kawartha Lakes

Reporting Period of January 1<sup>st</sup> – December 31<sup>st</sup>, 2023

Issued: February 21, 2024

Revision: 0

Operating Authorities:



This report has been prepared to satisfy the annual reporting requirements in O. Reg. 170/03 Section 11 and Schedule 22

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## Report Availability

This system does not serve more than 10,000 residences. The annual reports will be available to residents at the City of Kawartha Lakes Public Works Administration Office and on the City’s website at: [www.kawarthalakes.ca](http://www.kawarthalakes.ca). Notification that reports are available free of charge will be made on the City of Kawartha Lakes website. The City of Kawartha Lakes Public Works Administration Office is located at 322 Kent Street West in Lindsay, Ontario.

## Compliance Report Card

**Drinking Water System Number:** 220012251

**Drinking Water System Name:** Woodfield DWS

**Drinking Water System Owner:** City of Kawartha Lakes

**Drinking Water System Category:** Small Municipal Residential

**Period Being Reported:** January 1, 2023 - December 31, 2023

	# of Events	Date	Details
<b>Health &amp; Safety</b>			
Number of Incidents	0		
<b>Drinking Water</b>			
MECP Inspections	1	May 3, 2023	Announced - Focused Drinking Water Inspection. Final Inspection Rating of 100%.
AWQI’s	0		
Number of Non-Compliances identified during Ministry Inspection	0		
Number of Boil Water Advisories	0		

## System Process Description

### Raw Source

The water supply for the DWS comes from two (2) groundwater wells that are designated as non-GUDI (groundwater under direct influence).

### Treatment

The treatment system consists of the following:

- Sodium hypochlorite disinfection system
- Iron sequestering system
- Hydropneumatic tanks

- Contact pipe
- Stand-by diesel generator on-site

Treatment Chemicals used during the reporting year:

<b>Chemical Name</b>	<b>Use</b>	<b>Supplier</b>
Sodium Hypochlorite	Disinfection	Jutzi Water Technologies
Sodium Silicate	Iron Sequestering	Jutzi Water Technologies

## **Summary of Non-Compliance**

### **Adverse Water Quality Incidents**

There were no adverse water quality incidents reported during the reporting period.

### **Non-Compliance(s)**

There were no non-compliance issues reported during the reporting period.

### **Non-Compliance(s) Identified in a Ministry Inspection**

There were no non-compliance issues identified in the Ministry Inspection during this reporting period.

## **Flows**

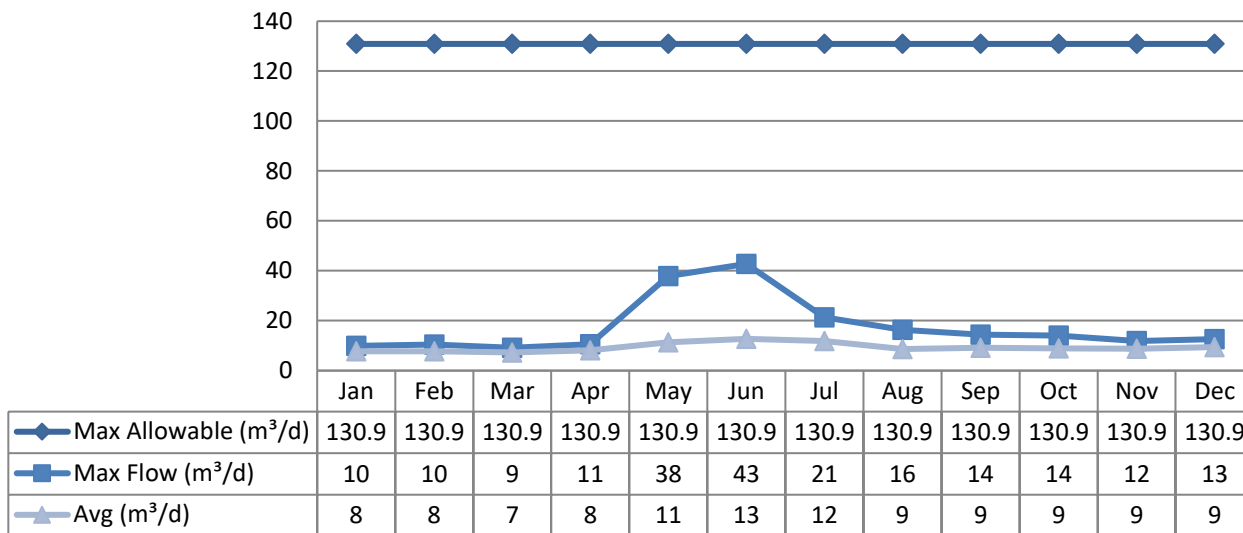
The Woodfield Drinking Water System is operating on average under half the rated capacity.

### **Raw Water Flows**

The Raw Water flows are regulated under the Permit to Take Water. 2023 Raw Flow Data was submitted to the Ministry electronically under permit #8680-AYSHVM. A copy of the confirmation is included in Appendix A. The Permit to Take Water compliance criteria is in litres per minute (L/min) but for the purposes of this report the flow rate is reported in litres per second (L/sec) based on industry standard for flow monitoring recording.

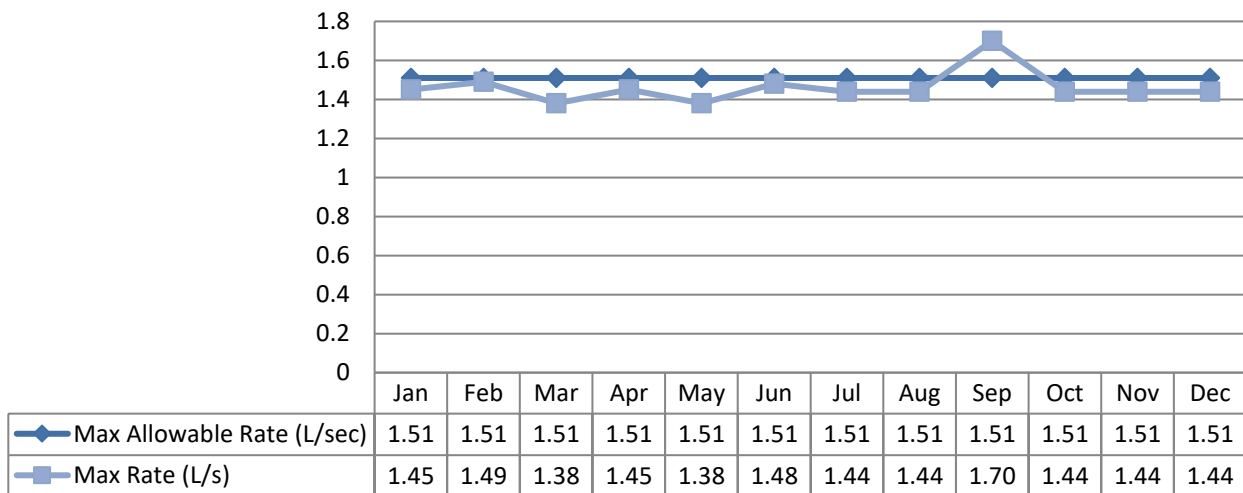
Total Monthly Flows (m<sup>3</sup>/d)

Max Allowable PTTW- Well #1



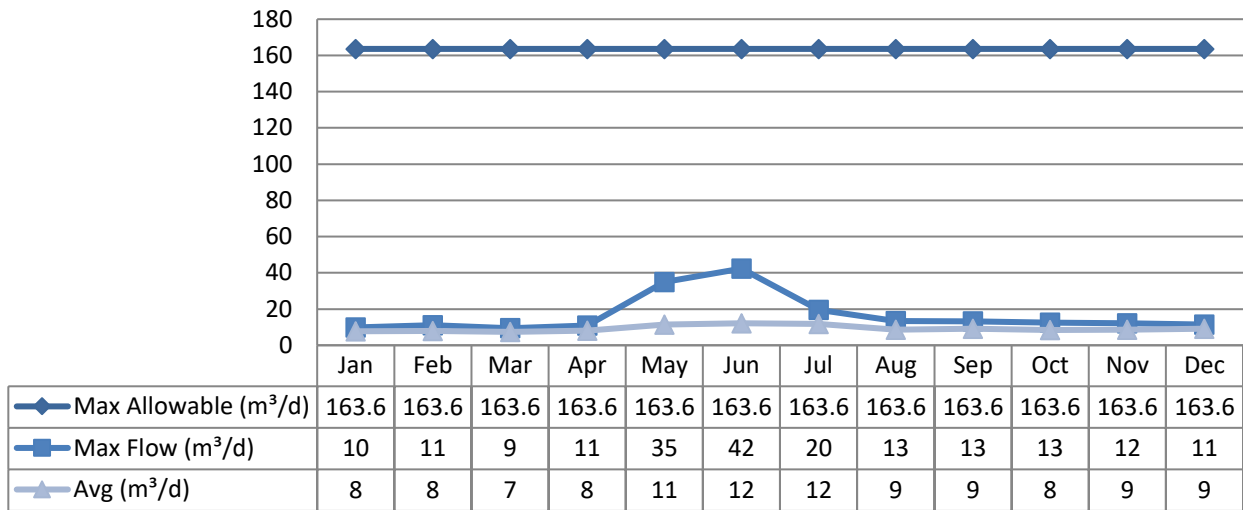
Monthly Rated Flows (L/s)

Max allowable rate – PTTW- Well #1

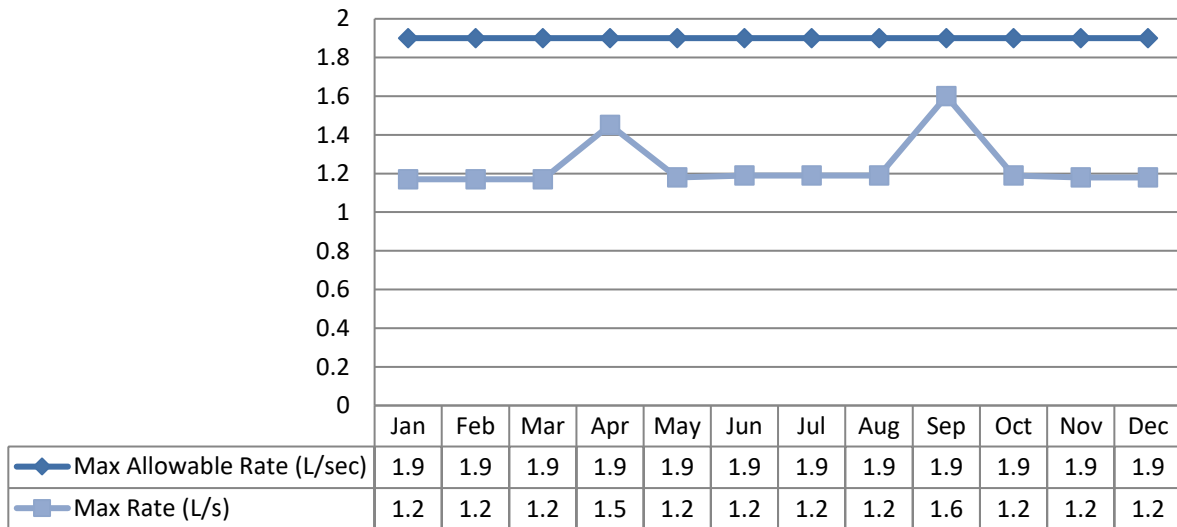


**Note:** Certain operational circumstances could cause results to be temporarily outside of the allowable rates. In September 2023, the allowable rate was momentarily surpassed as a result of pump start-up and did not indicate a true exceedance. A true exceedance would be documented within this report.

Total Monthly Flows (m<sup>3</sup>/d)  
Max Allowable PTTW- Well #2



Monthly Rated Flows (L/s)  
Max allowable rate – PTTW- Well #1

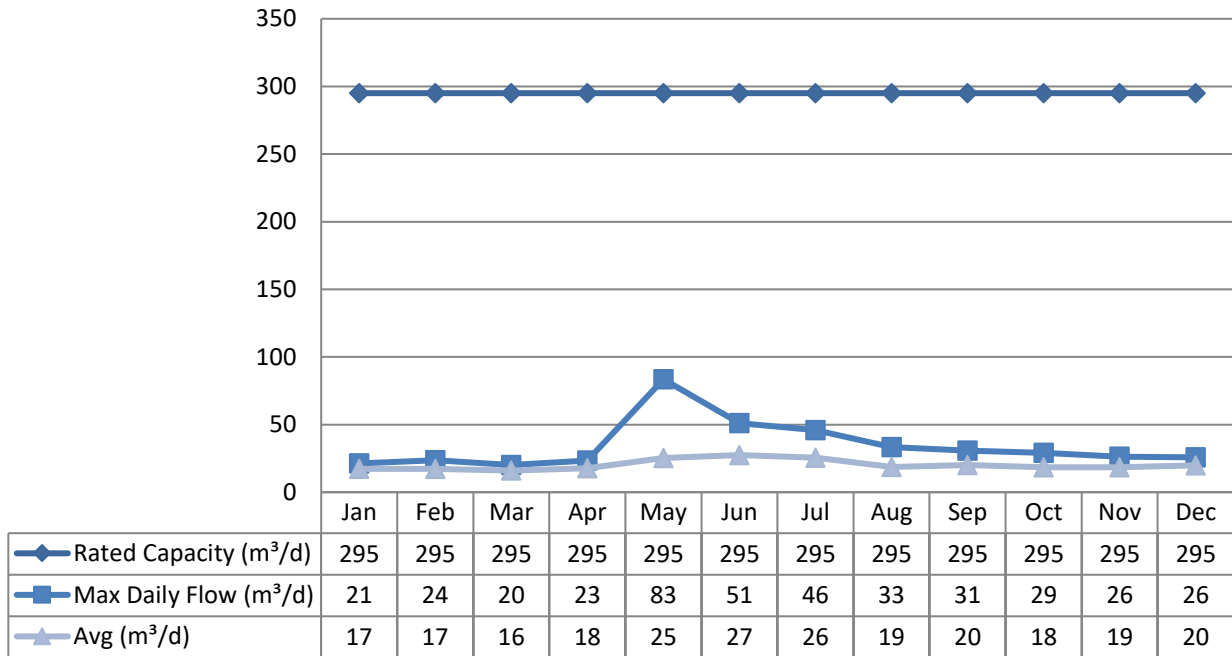


### Treated Water Flows

The Treated Water flows are regulated under the Municipal Drinking Water Licence #141-116.

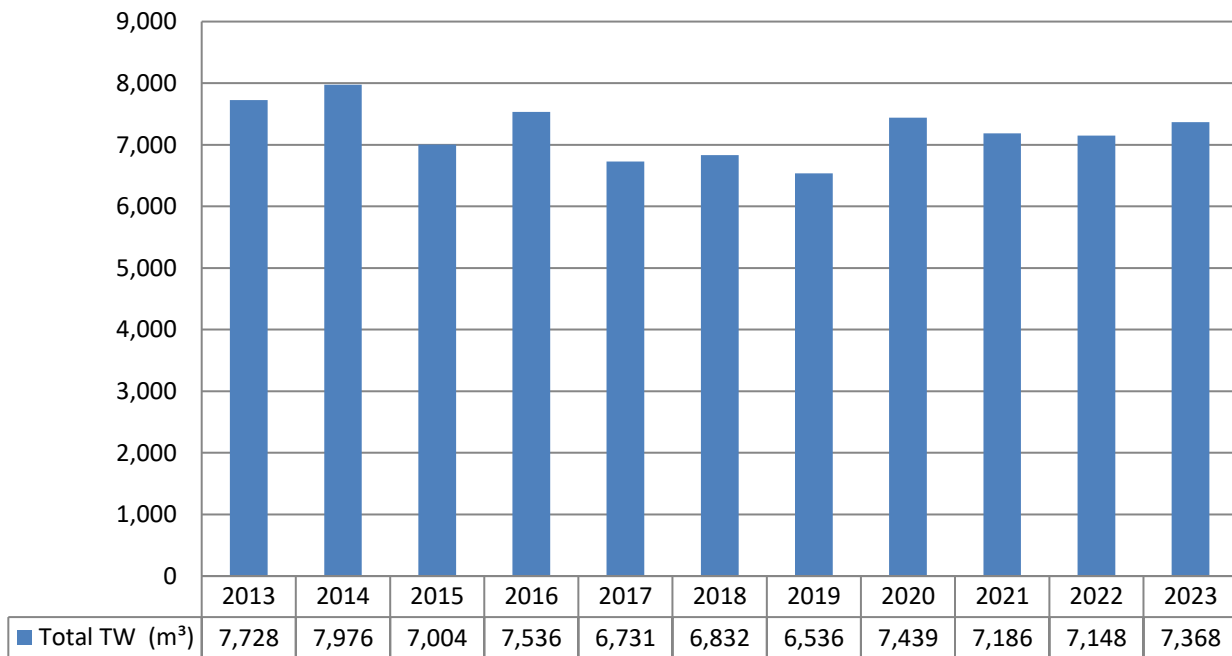
#### Monthly Rated Flows

Rated Capacity - MDWL



#### Annual Total Flow Comparison

Total Annual m<sup>3</sup>



## Regulatory Sample Results Summary

### Microbiological Testing

(completed under Schedule 10, 11 or 12 of Ontario Regulation 170/03, during the reporting period).

	No. of Samples Collected	Range of E. Coli Results	Range of E. Coli Results	Range of Total Coliform Results	Range of Total Coliform Results	Range of HPC Results	Range of HPC Results
		Min	Max	Min	Max	Min	Max
Raw Well 1	28	0	0	0	0		
Raw Well 2	28	0	0	0	0		
Treated	0	N/A	N/A	N/A	N/A	N/A	N/A
Distribution	52	0	0	0	0	0	2

### Operational Testing

(completed under Schedule 7, 8 or 9 of Ontario Regulation 170/03, during the reporting period).

Parameter	Number of Samples Collected	Range of Results Minimum	Range of Results Maximum
Turbidity Well 1 (NTU)	12	0.16	0.66
Turbidity Well 2 (NTU)	12	0.19	1.14
Turbidity Treated Water (NTU)	8760	0	2
Chlorine	8760	0.5	5
Fluoride (If the DWS provides fluoridation)	N/A	N/A	N/A

**Note:** Record the unit of measure if it is **not** milligrams per litre.

**Note:** For continuous monitors 8760 is used as the number of samples. Spikes recorded by on-line instrumentation were a result of air bubbles and various maintenance/calibration activities. All spikes are reviewed for compliance with O. Reg. 170/03, did not indicate a true exceedance. A true exceedance would be documented within this report.

### Inorganic Parameters

These parameters are tested as a requirement under O. Reg. 170/03. Sodium and Fluoride are required to be tested every five years. Nitrate and Nitrite are tested quarterly and the metals are tested every three years as required under O. Reg. 170/03. In the event any of the parameters exceed half of the maximum allowable concentration the parameter is required to be sampled quarterly.



- MAC = Maximum Allowable Concentration as per O. Reg. 169/03
- MDL = Method Detection Limit

Treated Water Parameter	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Exceedance MAC	Exceedance ½ MAC
Antimony: Sb (ug/L) - TW	2020/01/06	<MDL 0.09	6.0	No	No
Arsenic: As (ug/L) - TW	2020/01/06	<MDL 0.2	10.0	No	No
Barium: Ba (ug/L) - TW	2020/01/06	201.0	1000.0	No	No
Boron: B (ug/L) - TW	2020/01/06	23.0	5000.0	No	No
Cadmium: Cd (ug/L) - TW	2020/01/06	0.004	5.0	No	No
Chromium: Cr (ug/L) - TW	2020/01/06	0.08	50.0	No	No
Mercury: Hg (ug/L) - TW	2020/01/06	<MDL 0.01	1.0	No	No
Selenium: Se (ug/L) - TW	2020/01/06	<MDL 0.04	50.0	No	No
Uranium: U (ug/L) - TW	2020/01/06	0.014	20.0	No	No
<b>Additional Inorganics</b>					
Fluoride (mg/L) - TW	2020/01/06	0.16	1.5	No	No
Nitrite (mg/L) - TW	2023/01/03	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW	2023/04/03	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW	2023/07/04	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW	2023/10/03	<MDL 0.003	1.0	No	No
Nitrate (mg/L) - TW	2023/01/03	0.011	10.0	No	No
Nitrate (mg/L) - TW	2023/04/03	<MDL 0.006	10.0	No	No
Nitrate (mg/L) - TW	2023/07/04	0.011	10.0	No	No
Nitrate (mg/L) - TW	2023/10/03	0.015	10.0	No	No
Sodium: Na (mg/L) - TW	2020/01/06	17.8	20*	No	Yes

\*There is no "MAC" for Sodium. The aesthetic objective 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.

### Schedule 15 Sampling

The Schedule 15 Sampling is required under O. Reg. 170/03. This system is under reduced sampling. No plumbing samples were collected.

Distribution System	Number of Sampling Points	Number of Samples	Range of Results Minimum	Range of Results Maximum	MAC (ug/L)	Number of Exceedances
Alkalinity (mg/L)	1	2	188	223	N/A	N/A
pH	1	2	8.19	8.39	N/A	N/A
Lead (ug/l)	1	2	0.09	0.10	10	0

### **Organic Parameters**

These parameters are tested as a requirement under O. Reg. 170/03. In the event any of the parameters exceed half of the maximum allowable concentration the parameter is required to be sampled quarterly.

Treated Water Parameter	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Exceedance MAC	Exceedance ½ MAC
Alachlor (ug/L) - TW	2020/01/06	<MDL 0.02	5.00	No	No
Atrazine + N-dealkylated metabolites (ug/L) - TW	2020/01/06	<MDL 0.01	5.00	No	No
Azinphos-methyl (ug/L) - TW	2020/01/06	<MDL 0.05	20.00	No	No
Benzene (ug/L) – TW	2020/01/06	<MDL 0.32	1.00	No	No
Benzo(a)pyrene (ug/L) - TW	2020/01/06	<MDL 0.004	0.01	No	No
Bromoxynil (ug/L) - TW	2020/01/06	<MDL 0.33	5.00	No	No
Carbaryl (ug/L) - TW	2020/01/06	<MDL 0.05	90.00	No	No
Carbofuran (ug/L) - TW	2020/01/06	<MDL 0.01	90.00	No	No
Carbon Tetrachloride (ug/L) - TW	2020/01/06	<MDL 0.17	2.00	No	No
Chlorpyrifos (ug/L) - TW	2020/01/06	<MDL 0.02	90.00	No	No
Diazinon (ug/L) - TW	2020/01/06	<MDL 0.02	20.00	No	No
Dicamba (ug/L) - TW	2020/01/06	<MDL 0.2	120.00	No	No
1,2-Dichlorobenzene (ug/L) - TW	2020/01/06	<MDL 0.41	200.00	No	No
1,4-Dichlorobenzene (ug/L) - TW	2020/01/06	<MDL 0.36	5.00	No	No
1,2-Dichloroethane (ug/L) - TW	2020/01/06	<MDL 0.35	5.00	No	No
1,1-Dichloroethylene (ug/L) - TW	2020/01/06	<MDL 0.33	14.00	No	No
Dichloromethane (Methylene Chloride) (ug/L) - TW	2020/01/06	<MDL 0.35	50.00	No	No
2,4-Dichlorophenol (ug/L) - TW	2020/01/06	<MDL 0.15	900.00	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L) - TW	2020/01/06	<MDL 0.19	100.00	No	No
Diclofop-methyl (ug/L) - TW	2020/01/06	<MDL 0.4	9.00	No	No
Dimethoate (ug/L) - TW	2020/01/06	<MDL 0.06	20.00	No	No
Diquat (ug/L) - TW	2020/01/06	<MDL 1.0	70.00	No	No
Diuron (ug/L) - TW	2020/01/06	<MDL 0.03	150.00	No	No
Glyphosate (ug/L) - TW	2020/01/06	<MDL 1.0	280.00	No	No
Malathion (ug/L) - TW	2020/01/06	<MDL 0.02	190.00	No	No
2-Methyl-4chlorophenoxyacetic Acid (MCPA)	2020/01/06	<MDL 0.12	100.00	No	No

Treated Water Parameter	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Exceedance MAC	Exceedance ½ MAC
Metolachlor (ug/L) - TW	2020/01/06	<MDL 0.01	50.00	No	No
Metribuzin (ug/L) - TW	2020/01/06	<MDL 0.02	80.00	No	No
Monochlorobenzene (Chlorobenzene) (ug/L) – TW	2020/01/06	<MDL 0.3	80.00	No	No
Paraquat (ug/L) - TW	2020/01/06	<MDL 1.0	10.00	No	No
PCB (ug/L) - TW	2020/01/06	<MDL 0.04	3.00	No	No
Pentachlorophenol (ug/L) - TW	2020/01/06	<MDL 0.15	60.00	No	No
Phorate (ug/L) - TW	2020/01/06	<MDL 0.01	2.00	No	No
Picloram (ug/L) - TW	2020/01/06	<MDL 1.0	190.00	No	No
Prometryne (ug/L) - TW	2020/01/06	<MDL 0.03	1.00	No	No
Simazine (ug/L) - TW	2020/01/06	<MDL 0.01	10.00	No	No
Terbufos (ug/L) - TW	2020/01/06	<MDL 0.01	1.00	No	No
Tetrachloroethylene (ug/L) - TW	2020/01/06	<MDL 0.35	10.00	No	No
2,3,4,6-Tetrachlorophenol (ug/L) - TW	2020/01/06	<MDL 0.2	100.00	No	No
Triallate (ug/L) - TW	2020/01/06	<MDL 0.01	230.00	No	No
Trichloroethylene (ug/L) - TW	2020/01/06	<MDL 0.44	5.00	No	No
2,4,6-Trichlorophenol (ug/L) - TW	2020/01/06	<MDL 0.25	5.00	No	No
Trifluralin (ug/L) - TW	2020/01/06	<MDL 0.02	45.00	No	No
Vinyl Chloride (ug/L) - TW	2020/01/06	<MDL 0.17	1.00	No	No
<b>Distribution Water</b>					
Trihalomethane: Total (ug/L) Annual Average - DW	2023	22.5	100	No	No
HAA Total (ug/L) Annual Average - DW	2023	5.30	80	No	No

MAC = Maximum Allowable Concentration as per O. Reg. 169/03

MDL = Method Detection Limit

### **Additional Legislated Samples**



There were no additional legislated samples required to report during this reporting period.

### **Major Maintenance Summary incurred to install, repair or replace required equipment**

WO #	Description
3202434	Chlorine Pump 1 Head, Leaking
3247635	Plant Lighting, Upgrades
3338094	Roof Replace
3339706	Emergency Light, Replace Battery
3434002	Generator Sound Fence, Repair Replace

# Appendix A

## WTRS Submission Confirmation



Ministry of the Environment,  
Conservation and Parks

| [WT DATA](#) | [USER PROFILE](#) | [CONTACT US](#) | [HELP](#) | [HOME](#) | [LOGOUT](#) |

Location: [WTRS](#) / [WT DATA](#) / [Input WT Record](#) WTRS-WT-008

**Water Taking Data submitted successfully.**

**Confirmation:**

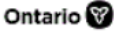
Thank you for submitting your water taking data online.

Permit Number: 8680-AYSHVM  
Permit Holder: THE CORPORATION OF THE CITY OF KAWARTHA LAKES.  
Received on: Jan 31, 2024 11:21 AM

This confirmation indicates that your data has been received by the Ministry, but should not be construed as acceptance of this data if it differs from that specified on the Permit Number, assigned to the Permit Holder stated above.

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