

Woods of Manilla Drinking Water System

Waterworks # 210002218

System Category – Small Municipal Residential

Annual Water Report

Reporting Period of January 1st – December 31st 2023

Issued: February 14, 2024

Operating Authority:



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

Table of Contents

Annual Water Report	1
Report Availability	1
Compliance Report Card	1
System Process Description	1
Raw Source	1
Treatment	1
Treatment Chemicals used during the reporting year:	2
Summary of Non-Compliance.....	2
Adverse Water Quality Incidents.....	2
Non-Compliance	2
Non-Compliance Identified in a Ministry Inspection:	2
Flows	2
Raw Water Flows.....	2
Total Monthly Flows (m ³ /d)-Well #1	3
Monthly Rated Flows (L/s)-Well #1	3
Total Monthly Flows (m ³ /d)-Well #2A.....	4
Monthly Rated Flows (L/s)-Well #2A.....	4
Treated Water Flows	5
Monthly Rated Flows	5
Annual Total Flow Comparison.....	5
Regulatory Sample Results Summary	6
Microbiological Testing	6
Operational Testing	6
Inorganic Parameters	6
Schedule 15 Sampling:.....	7
Organic Parameters.....	8
Additional Legislated Samples.....	8
Major Maintenance Summary	9
WTRS Data and Submission Confirmation	A

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 by appointment and on the [City's website](#). 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: 210002218

Drinking Water System Name: Woods of Manilla 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
Drinking Water			
MECP Inspections	1	July 27, 2023	Announced - Focused Drinking Water Inspection - Final Inspection Rating – 100%
AWQI's	0		
Number of Non-Compliances	0		
Number of Boil Water Advisories	0		

System Process Description

Raw Source

The Woods of Manilla Drinking Supply System consists of two production wells. The Woods of Manilla I Water Treatment Plant is supplied with raw groundwater from one well (Well 1) and the Woods of Manilla II Water Treatment Plant is supplied from a separate groundwater well (Well 2A).

Treatment

The treatment system consists of the following:

Woods of Manilla I

- One groundwater production well considered to be non-GUDI with a pump
- Sodium hypochlorite feed system with one metering pump

- Clearwell
- Two flow meters: raw and treated
- Chlorine analyzer
- Turbidity analyzer
- Two highlifts

Note: Woods of Manilla I was offline during the reporting year.

Woods of Manilla II

- One groundwater production well considered to be non-GUDI with a pump
- Sodium hypochlorite feed system with two metering pumps
- Clearwell
- Two flow meters: raw and treated
- Chlorine analyzer
- Turbidity analyzers
- Two submersible highlifts
- Standby generator

Treatment Chemicals used during the reporting year:

Chemical Name	Use	Supplier
Sodium Hypochlorite	Disinfection	Lavo

Summary of Non-Compliance

Adverse Water Quality Incidents

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

Non-Compliance

There were no non-compliances reported during the reporting period.

Non-Compliance Identified in a Ministry Inspection:

There were no non-compliances identified in a Ministry Inspection during this period.

Flows

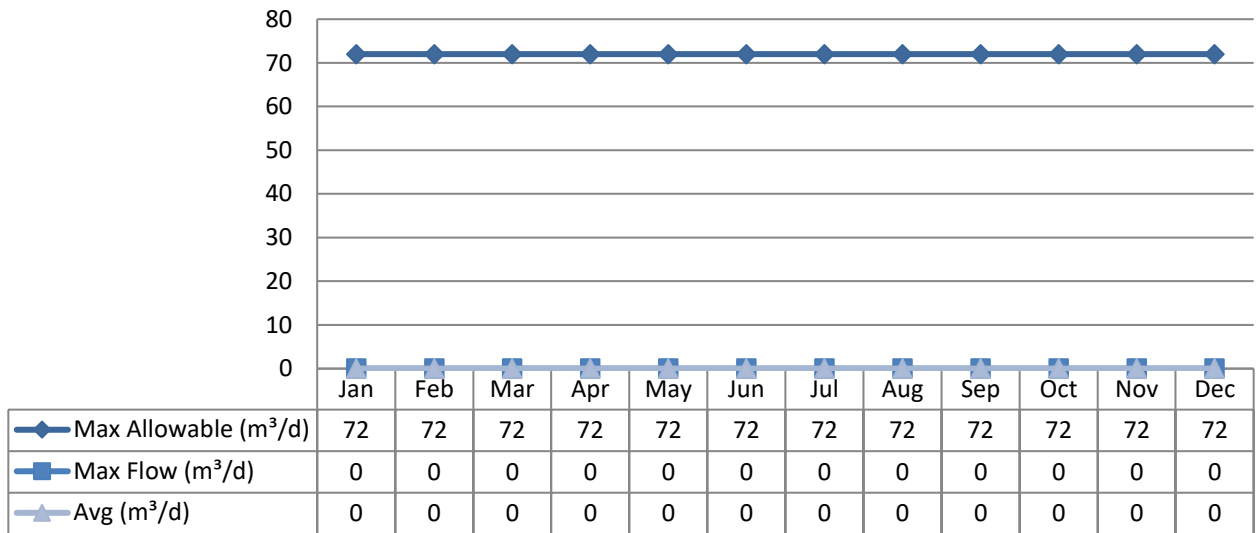
The Woods of Manilla Drinking Water System is operating under half the rated capacity.

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 #2660-C7KSBJ. The confirmation and a copy of the data that was submitted are attached in Appendix A.

Total Monthly Flows (m³/d)

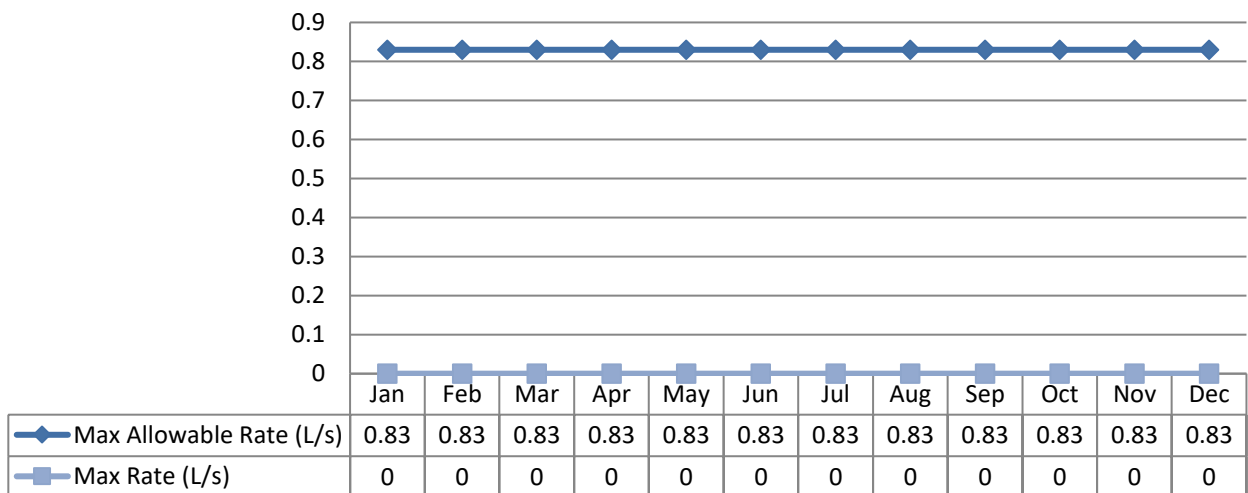
Max Allowable PTTW- Well #1



Note: Well 1 was offline during the reporting period.

Monthly Rated Flows (L/s)

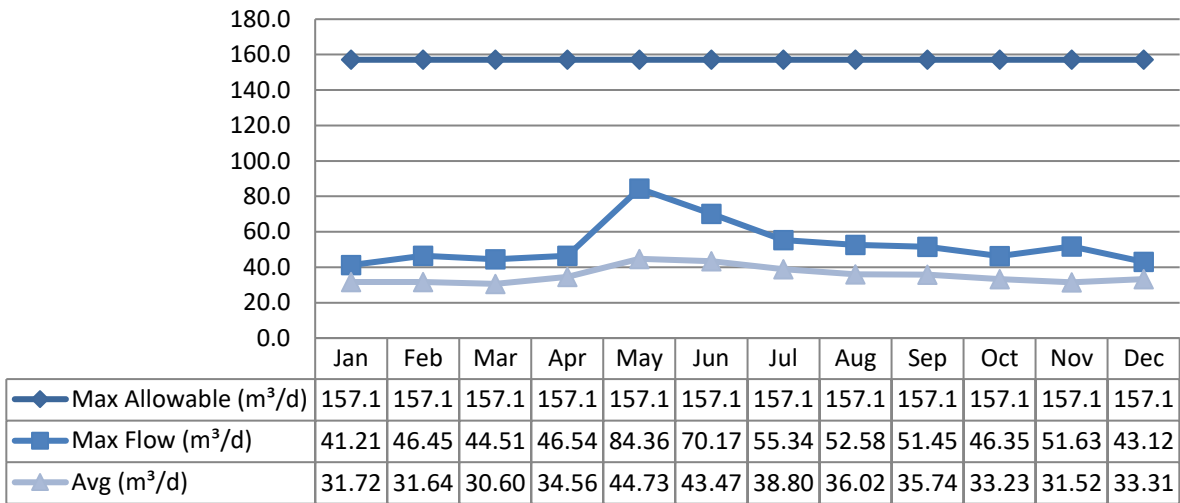
Max allowable rate – PTTW- Well #1



Note: Well 1 was offline during the reporting period.

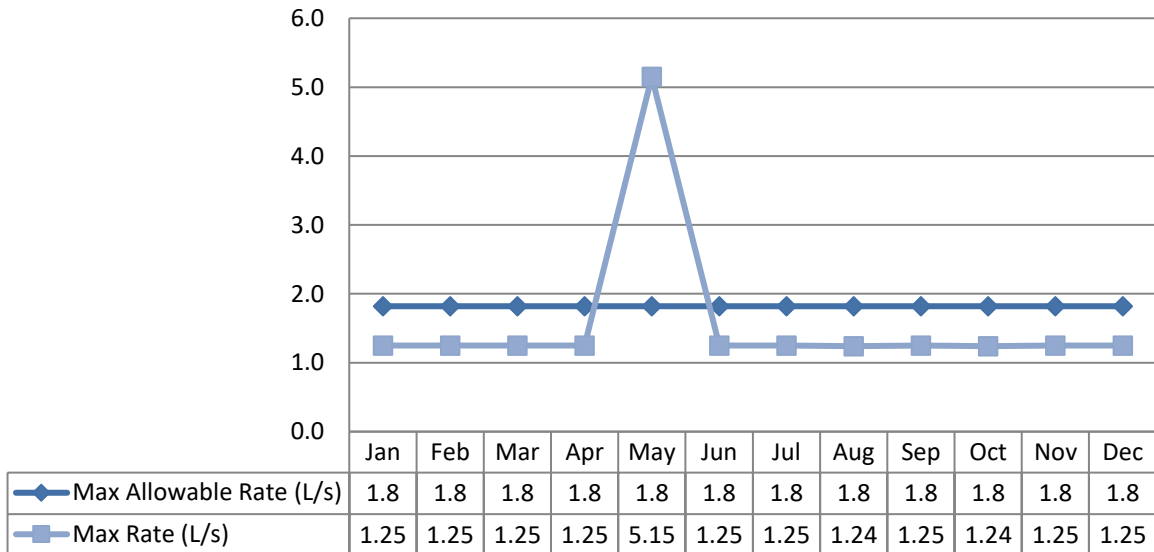
Total Monthly Flows (m³/d)

Max Allowable PTTW- Well #2A



Monthly Rated Flows (L/s)

Max allowable rate – PTTW- Well #2A



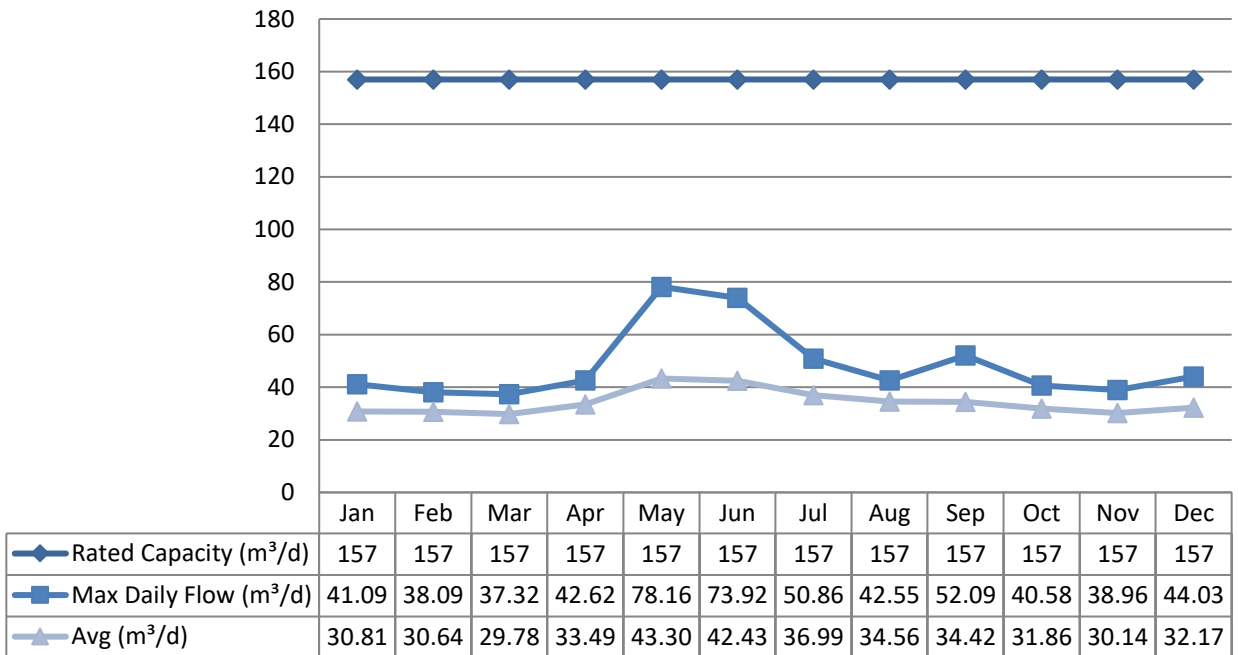
Note: The above table shows there were exceedances in instantaneous peak flow rate (L/s) but these exceedances were short in duration. Spikes recorded by on-line instrumentation were a result of air bubbles and various maintenance/calibration activities. The significant spike in May was due to scheduled flow meter calibration. All spikes were reviewed for compliance with O. Reg. 170/03.

Treated Water Flows

The Treated Water flows are regulated under the Municipal Licence 141-106.

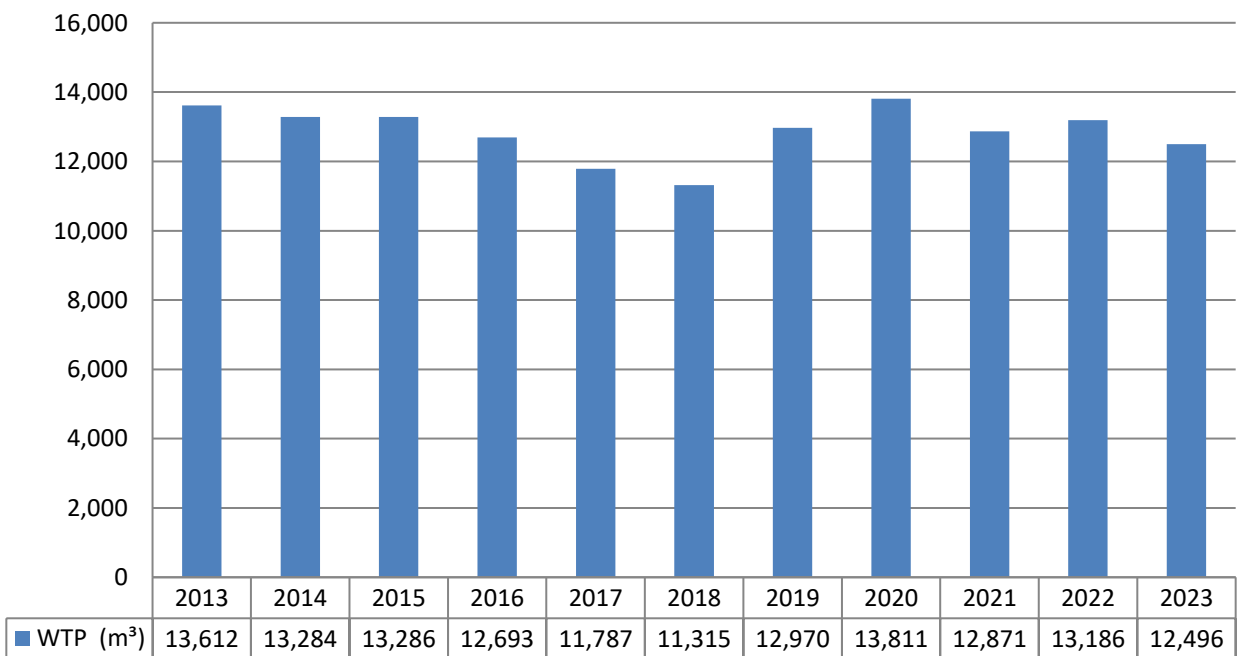
Monthly Rated Flows – Woods of Manilla II

Rated Capacity - MDWL



Annual Total Flow Comparison

Total Annual m³



Regulatory Sample Results Summary

Microbiological Testing

	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	0						
Raw Well 2A	50	0	0	0	0	N/A	N/A
Treated	51	0	0	0	0	0	10
Distribution	51	0	0	0	0	0	8

Note: Raw Well 1 was offline during the reporting year.

Operational Testing

	No. of Samples Collected	Range of Results Minimum	Range of Results Maximum
Turbidity Well 1 (NTU)	0		
Turbidity Well 2A	12	0	0.69
Chlorine	8760	0.47	2.13
Fluoride (if the DWS provides fluoridation)	N/A	N/A	N/A

Note: Well 1 was offline during the reporting year.

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.

Inorganic Parameters

These parameters are tested as a requirement under O. Reg. 170/03. Sodium and Fluoride are required to be tested every 5 years. Nitrate and Nitrite are tested quarterly and the metals are tested every five 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	Exceedances MAC	Exceedances ½ MAC
Antimony: (Sb (ug/L))	2020/01/06	<MDL	6.0	No	No

Treated Water Parameter	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Exceedances MAC	Exceedances ½ MAC
		0.09			
Arsenic: As (ug/L)	2020/01/06	<MDL 0.2	10.0	No	No
Barium: Ba (ug/L)	2020/01/06	176.0	1000.0	No	No
Boron: B (ug/L)	2020/01/06	48.0	5000.0	No	No
Cadmium: Cd (ug/L)	2020/01/06	<MDL 0.003	5.0	No	No
Chromium: Cr (ug/L)	2020/01/06	<MDL 0.08	50.0	No	No
Mercury: Hg (ug/L)	2020/01/06	<MDL 0.01	1.0	No	No
Selenium: Se (ug/L)	2020/01/06	<MDL 0.04	50.0	No	No
Uranium: U (ug/L)	2020/01/06	0.022	20.0	No	No
Additional Inorganics					
Fluoride (mg/L)	2020/01/06	0.26	1.5	No	No
Nitrite (mg/L)	2023/01/03	<MDL 0.003	1.0	No	No
Nitrite (mg/L)	2023/04/03	<MDL 0.003	1.0	No	No
Nitrite (mg/L)	2023/07/04	<MDL 0.003	1.0	No	No
Nitrite (mg/L)	2023/10/02	<MDL 0.003	1.0	No	No
Nitrate (mg/L)	2023/01/03	0.021	10.0	No	No
Nitrate (mg/L)	2023/04/03	0.018	10.0	No	No
Nitrate (mg/L)	2023/07/04	0.017	10.0	No	No
Nitrate (mg/L)	2023/10/02	0.014	10.0	No	No
Sodium: Na (mg/L)	2020/01/06	17.2	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 (µg/L)	Number of Exceedances
Alkalinity (mg/L)	1	2	164	165	N/A	N/A
pH	2	2	7.71	7.9	N/A	N/A
Lead (µg/l)	1	2	0.18	0.6	10	0

Organic Parameters

These parameters are tested every five years 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)	2020/01/06	<MDL 0.02	5.0	No	No
Atrazine + N-dealkylated metabolites (ug/L)	2020/01/06	<MDL 0.01	5.0	No	No
Azinphos-methyl (ug/L)	2020/01/06	<MDL 0.05	20.0	No	No
Benzene (ug/L)	2020/01/06	<MDL 0.32	1.0	No	No
Benzo(a)pyrene (ug/L)	2020/01/06	<MDL 0.004	0.01	No	No
Bromoxynil (ug/L)	2020/01/06	<MDL 0.33	5.0	No	No
Carbaryl (ug/L)	2020/01/06	<MDL 0.05	90.0	No	No
Carbofuran (ug/L)	2020/01/06	<MDL 0.01	90.0	No	No
Carbon Tetrachloride (ug/L)	2020/01/06	<MDL 0.17	2.0	No	No
Chlorpyrifos (ug/L)	2020/01/06	<MDL 0.02	90.0	No	No
Diazinon (ug/L)	2020/01/06	<MDL 0.02	20.0	No	No
Dicamba (ug/L)	2020/01/06	<MDL 0.2	120.0	No	No
1,2-Dichlorobenzene (ug/L)	2020/01/06	<MDL 0.41	200.0	No	No
1,4-Dichlorobenzene (ug/L)	2020/01/06	<MDL 0.36	5.0	No	No
1,2-Dichloroethane (ug/L)	2020/01/06	<MDL 0.35	5.0	No	No
1,1-Dichloroethylene (ug/L)	2020/01/06	<MDL 0.33	14.0	No	No
Dichloromethane (Methylene Chloride) (ug/L)	2020/01/06	<MDL 0.35	50.0	No	No
2,4-Dichlorophenol (ug/L)	2020/01/06	<MDL 0.15	900.0	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L)	2020/01/06	<MDL 0.19	100.0	No	No
Diclofop-methyl (ug/L)	2020/01/06	<MDL 0.4	9.0	No	No
Dimethoate (ug/L)	2020/01/06	<MDL 0.06	20.0	No	No
Diquat (ug/L)	2020/01/06	<MDL 1.0	70.0	No	No
Diuron (ug/L)	2020/01/06	<MDL 0.03	150.0	No	No
Glyphosate (ug/L)	2020/01/06	<MDL 1.0	280.0	No	No
Malathion (ug/L)	2020/01/06	<MDL 0.02	190.0	No	No
Metolachlor (ug/L)	2020/01/06	<MDL 0.01	50.0	No	No

Woods of Manilla Drinking Water System – 2023 Annual Water Reports

Treated Water Parameter	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Exceedance MAC	Exceedance ½ MAC
Metribuzin (ug/L)	2020/01/06	<MDL 0.02	80.0	No	No
Monochlorobenzene (Chlorobenzene) (ug/L)	2020/01/06	<MDL 0.3	80.0	No	No
Paraquat (ug/L)	2020/01/06	<MDL 1.0	10.0	No	No
PCB (ug/L)	2020/01/06	<MDL 0.04	3.0	No	No
Pentachlorophenol (ug/L)	2020/01/06	<MDL 0.15	60.0	No	No
Phorate (ug/L)	2020/01/06	<MDL 0.01	2.0	No	No
Picloram (ug/L)	2020/01/06	<MDL 1.0	190.0	No	No
Prometryne (ug/L)	2020/01/06	<MDL 0.03	1.0	No	No
Simazine (ug/L)	2020/01/06	<MDL 0.01	10.0	No	No
Terbufos (ug/L)	2020/01/06	<MDL 0.01	1.0	No	No
Tetrachloroethylene (ug/L)	2020/01/06	<MDL 0.35	10.0	No	No
2,3,4,6-Tetrachlorophenol (ug/L)	2020/01/06	<MDL 0.2	100.0	No	No
Triallate (ug/L)	2020/01/06	<MDL 0.01	230.0	No	No
Trichloroethylene (ug/L)	2020/01/06	<MDL 0.44	5.0	No	No
2,4,6-Trichlorophenol (ug/L)	2020/01/06	<MDL 0.25	5.0	No	No
Trifluralin (ug/L)	2020/01/06	<MDL 0.12	100.0	No	No
Vinyl Chloride (ug/L)	2020/01/06	<MDL 0.02	45.0	No	No
Distribution Water					
Trihalomethane: Total (ug/L) Annual Average Q1 - DW	2023/01/04	10.98	100.0	No	No
Trihalomethane: Total (ug/L) Annual Average Q2 - DW	2023/04/03	11.48	100.0	No	No
Trihalomethane: Total (ug/L) Annual Average Q3 - DW	2023/07/04	12.25	100.0	No	No
Trihalomethane: Total (ug/L) Annual Average Q4 - DW	2023/10/02	12.25	100.0	No	No
HAA Total (ug/L) Annual Average Q1 - DW	2023/01/04	5.3	80.0	No	No
HAA Total (ug/L) Annual Average Q2 - DW	2023/04/03	5.3	80.0	No	No
HAA Total (ug/L) Annual Average Q3 - DW	2023/07/04	5.3	80.0	No	No
HAA Total (ug/L) Annual Average Q4 - DW	2023/10/02	5.3	80.0	No	No

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

MDL = Method Detection Limit

Additional Legislated Samples

There was no additional sampling required.

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

WO #	Description

Appendix A

WTRS Data and Submission Confirmation

The screenshot shows a web page from the Ontario government. At the top left is the Ontario logo. Below it, a breadcrumb trail reads "Location: WTRS / WT DATA / Input WT Record". On the top right, the identifier "WTRS-WT-008" is displayed. A green-bordered box contains the message "Water Taking Data submitted successfully." Below this, a "Confirmation:" section contains the following text: "Thank you for submitting your water taking data online.", "Permit Number: 2660-C7KSBJ", "Permit Holder: THE CORPORATION OF THE CITY OF KAWARTHA LAKES.", and "Received on: Jan 23, 2024 2:51 PM". A disclaimer follows: "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." A button labeled "Return to Main Page" is centered below the text. In the bottom right corner, the page footer includes "CITY OF KAWARTHA LAKES | 2024/01/23", "version: v4.5.0.21 (build#: 22)", and "Last modified: 2018/09/18". At the very bottom, the Ontario logo is repeated on the left, followed by "This site maintained by the Government of Ontario", and on the right, "©2024 Queen's Printer for Ontario".