

# Woods of Manilla Drinking Water System

---

Waterworks # 210002218

System Category – Small Municipal Residential

## Annual Water Report

Reporting Period of January 1<sup>st</sup> – December 31<sup>st</sup> 2022

Issued: February 17, 2023

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 <sup>3</sup> /d)-Well #1 .....	3
Monthly Rated Flows (L/s)-Well #1 .....	3
Total Monthly Flows (m <sup>3</sup> /d)-Well #2A.....	4
Monthly Rated Flows (L/s)-Well #2A.....	4
Treated Water Flows .....	4
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.....	9
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, 2022 - December 31, 2022

	# of Events	Date	Details
<b>Drinking Water</b>			
MECP Inspections	1	July 21, 2022	Announced - Focused Drinking Water Inspection - Final Inspection Rating not yet received.
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

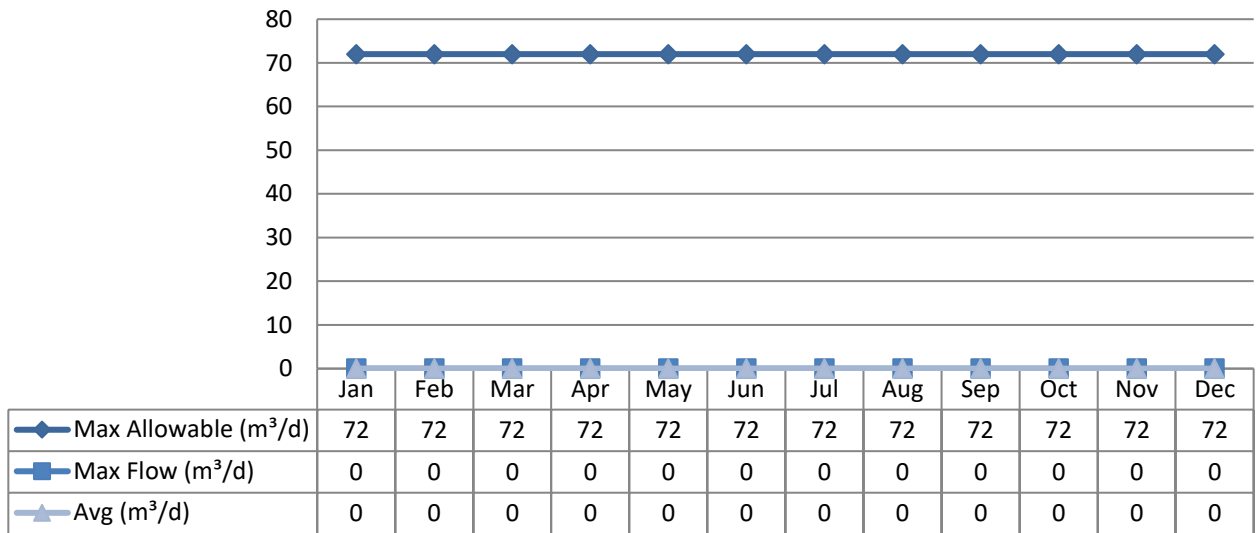
The Woods of Manilla Drinking Water System is operating under half the rated capacity.

### Raw Water Flows

The Raw Water flows are regulated under the Permit to Take Water. 2022 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 (m<sup>3</sup>/d)

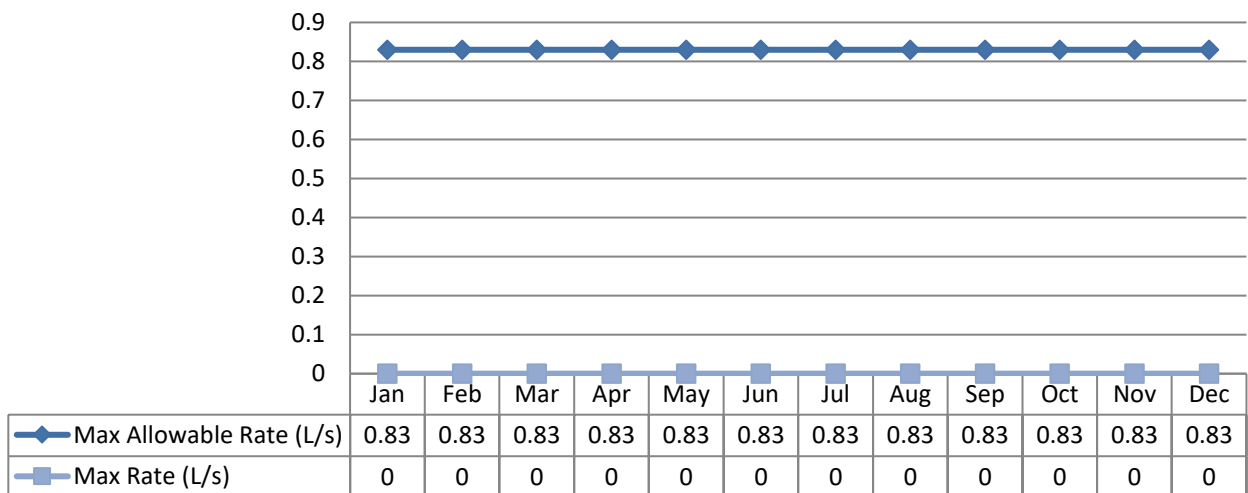
Max Allowable PTTW- Well #1



Note: Well 1 was offline during the reporting period.

Monthly Rated Flows (L/s)

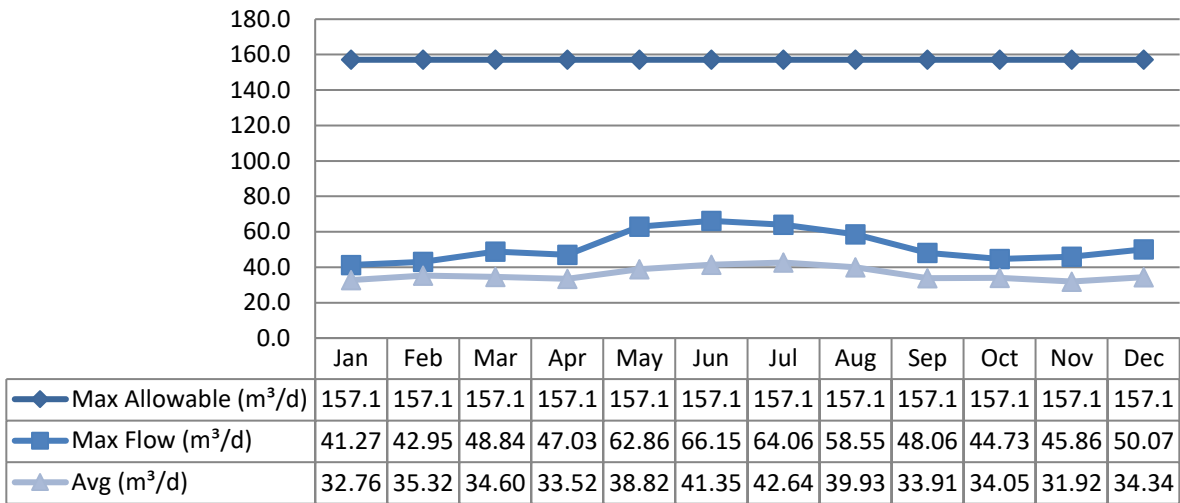
Max allowable rate – PTTW- Well #1



Note: Well 1 was offline during the reporting period.

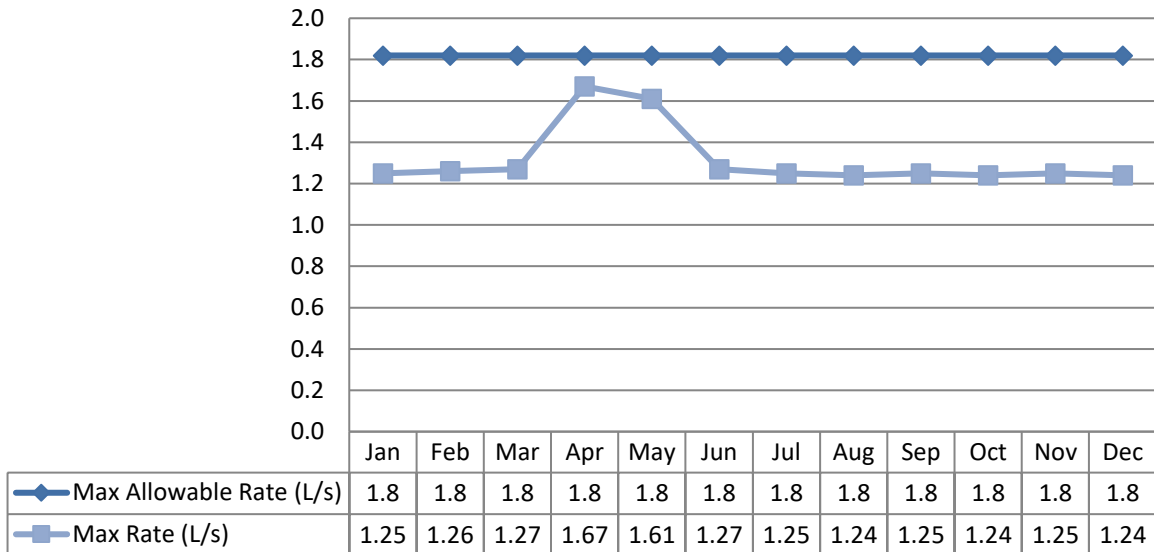
Total Monthly Flows (m<sup>3</sup>/d)

Max Allowable PTTW- Well #2A



Monthly Rated Flows (L/s)

Max allowable rate – PTTW- Well #2A

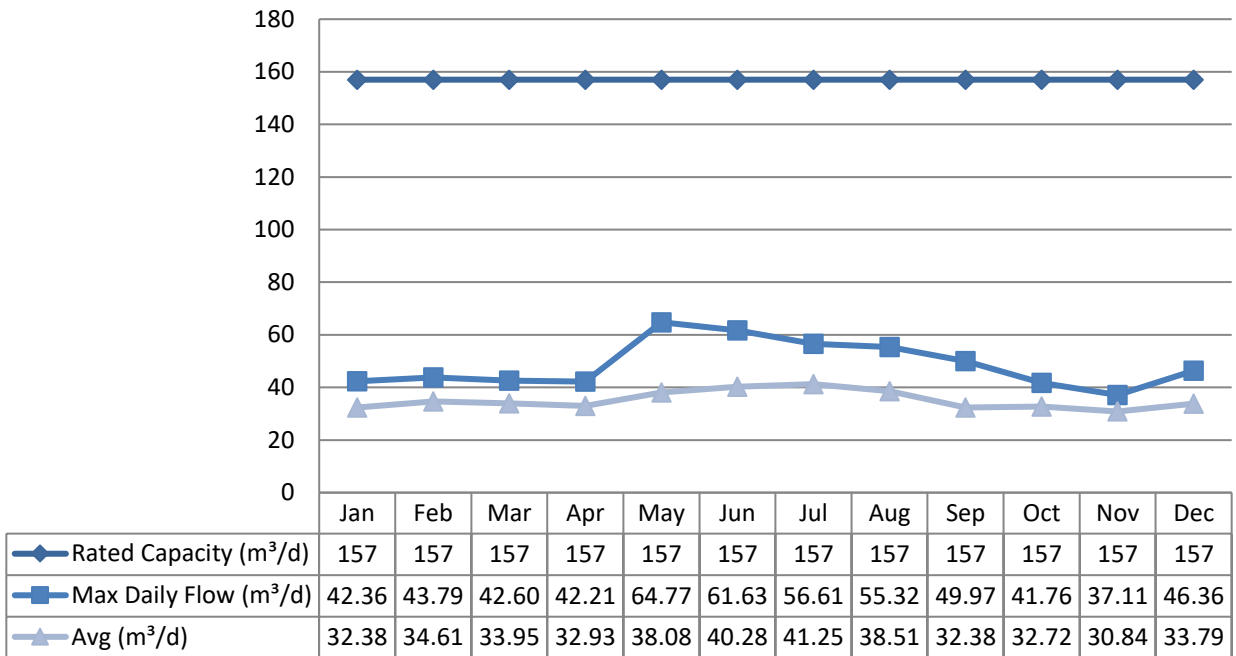


**Treated Water Flows**

The Treated Water flows are regulated under the Municipal Licence.

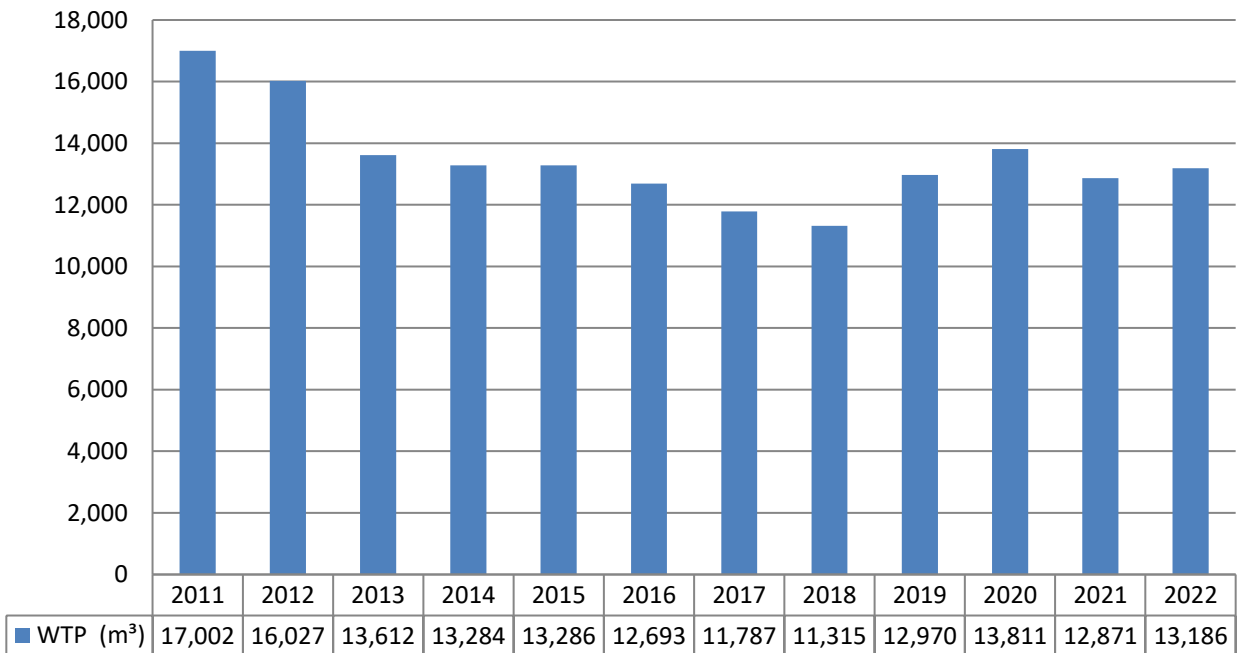
Monthly Rated Flows – Woods of Manilla II

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	54	0	0	0	0	N/A	N/A
Treated	54	0	0	0	0	0	35
Distribution	60	0	0	0	0	0	101

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	13	0	2.00
Chlorine	8760	0.17	5.01
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	



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
<b>Additional Inorganics</b>					
Fluoride (mg/L)	2020/01/06	0.26	1.5	No	No
Nitrite (mg/L)	2022/01/11	<MDL 0.003	1.0	No	No
Nitrite (mg/L)	2022/04/14	<MDL 0.003	1.0	No	No
Nitrite (mg/L)	2022/07/05	<MDL 0.003	1.0	No	No
Nitrite (mg/L)	2022/10/06	<MDL 0.003	1.0	No	No
Nitrate (mg/L)	2022/01/11	0.016	10.0	No	No
Nitrate (mg/L)	2022/04/14	0.016	10.0	No	No
Nitrate (mg/L)	2022/07/05	0.19	10.0	No	No
Nitrate (mg/L)	2022/10/06	0.018	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	No. Of Sampling Points	No. of Samples	Range of Results	Range of Results	MAC (µg/L)	No. Of Exceedances
Alkalinity	2	2	163	172	N/A	N/A

Distribution System	No. Of Sampling Points	No. of Samples	Range of Results	Range of Results	MAC (µg/L)	No. Of Exceedances
(mg/L)						
pH	2	2	7.72	8.39	N/A	N/A
Lead (µg/l)	0	0	N/A	N/A	N/A	N/A

### 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
Metribuzin (ug/L)	2020/01/06	<MDL 0.02	80.0	No	No
Monochlorobenzene	2020/01/06	<MDL 0.3	80.0	No	No

Treated Water Parameter	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Exceedance MAC	Exceedance ½ MAC
(Chlorobenzene) (ug/L)					
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
<b>Distribution Water</b>					
Trihalomethane: Total (ug/L) Annual Average Q1 - DW	2022/01/10	92.45	100.0	No	Yes
Trihalomethane: Total (ug/L) Annual Average Q2 - DW	2022/04/11	92.5	100.0	No	Yes
Trihalomethane: Total (ug/L) Annual Average Q3 - DW	2022/07/04	52.73	100.0	No	Yes
Trihalomethane: Total (ug/L) Annual Average Q4 - DW	2022/10/04	10.98	100.0	No	No
HAA Total (ug/L) Annual Average Q1 - DW	2022/01/10	66.4	80.0	No	Yes
HAA Total (ug/L) Annual Average Q2 - DW	2022/04/11	66.4	80.0	No	Yes
HAA Total (ug/L) Annual Average Q3 - DW	2022/07/04	34.98	80.0	No	No
HAA Total (ug/L) Annual Average Q4 - DW	2022/10/04	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**

Woods of Manilla Drinking Water System – 2022 Annual Water Reports

<b>WO #</b>	<b>Description</b>
52146	Replaced multiranger clearwell level controller
52259	OBT1 Inspection - Generator
52333	Relocation of sampling taps
57077	Chlorine Injection Repairs

# Appendix A

## WTRS Data and Submission Confirmation

The screenshot shows a web application interface for WTRS. At the top left is the Ontario logo. In the center is the 'environet WTRS' logo. At the top right is the text 'Ministry of the Environment, Conservation and Parks'. Below these is a navigation bar with links: 'WT DATA | USER PROFILE | CONTACT US | HELP | HOME | LOGOUT |'. The breadcrumb trail reads 'Location: WTRS / WT DATA / Input WT Record' and the page ID is 'WTRS-WT-008'. A green-bordered box contains the message 'Water Taking Data submitted successfully.'. Below this is a 'Confirmation:' section with 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 27, 2023 9:03 AM'. A disclaimer states: '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.' Two buttons are present: 'Print Confirmation' and 'Return to Main Page'. The footer contains 'CITY OF KAWARTHA LAKES | 2023/01/27', 'version: v4.5.0.21 (build#: 22)', 'Last modified: 2018/09/18', and '©2023 Queen's Printer for Ontario'. At the bottom left, it says 'Ontario This site maintained by the Government of Ontario'.