



Ontario Clean Water Agency
Agence Ontarienne Des Eaux

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February 28, 2025

Alton Hobbs, Chief Administrative Officer
The Corporation of the Township of Assignack
156 Arthur St. P.O. Box 238
Manitowaning, Ontario
POP 1N0

Re: O. Reg. 170 Section 11 & Schedule 22 Annual Reporting under SDWA
O. Reg 387 Section 9 Annual Reporting under OWRA
For the Manitowaning Water Treatment Plant
Waterworks No.: 210001013

Dear Mr. Hobbs;

Attached are the [2024](#) Annual and Summary Reports for the Manitowaning Water System. The Reports are based on information provided by Operators as of [February 19, 2025](#) in accordance with Section 11 and Schedule 22 of O. Reg. 170/03, under the Safe Drinking Water Act. A confirmation of submission of the PTTW reporting, as required by O.Reg 387, is included as part of the report.

Please note that any Orders that you have received directly from the MECP, or any major expense incurred by the Municipality which are not listed, should be reviewed and added to the report.

As per Schedule 22 of O. Reg. 170/03, this Summary Report is to be provided to the members of the municipal council no later than March 31, [2025](#). Please ensure this distribution occurs.

Section 12 of O. Reg. 170/03, requires both the Summary Report and the Annual Report be made available for inspection by any member of the public during normal business hours, without charge. The reports should be made available for inspection at the office of the municipality or at a location that is reasonably convenient to the users of the water system.

Sincerely,

Keith Stringer
Senior Operations Manager
Ontario Clean Water Agency
(705)626-5557

RECEIVED
FEB 27 2025

Manitowaning Water Treatment

Large Municipal Residential Drinking Water System

January 1, 2024 – December 31, 2024

*O.Reg 170/03 Schedule 22 Summary Report
O.Reg 170/03 Section 11 Annual Report
&
O.Reg 387/04 Annual Record of Water Taking*

Prepared by the Ontario Clean Water Agency
For The Corporation of the Municipality of Assiginack



Ontario Clean Water Agency
Agence Ontarienne Des Eaux



Drinking-Water System Number:	210001013
Drinking-Water System Name:	Manitowaning Drinking Water System
Drinking-Water System Owner:	Corporation of the Municipality of Assinack
Drinking-Water System Category:	Large Municipal Residential

SECTION 1: INTRODUCTION

This document is prepared in accordance with Section 11 and Schedule 22 of O.Reg.170/03 under the Safe Drinking Water Act and with Section 9 of O.Reg.387/04 under the Ontario Water Resources Act. The reports are prepared by the Ontario Clean Water Agency. Acronyms and definitions can be found at the end of the report.

A copy of the Summary Report must be provided to the members of the municipal council by March 31, 2025.

SECTION 2: REQUIREMENTS OF THE REPORTS

Schedule 22 Report

The report must list the requirements of the Act, the regulations, the system's approval and any order that the system **failed to meet** at any time during the period covered by the report. It must also specify the duration of the failure, and for each failure referred to, describe the measures that were taken to correct the failure.

For the purpose of enabling the owner of the system to assess the rated capability of their system to meet existing and future planned water uses, the following information is required to be included in this report:

- A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows.
- A comparison of the summary to the rated capacity and flow rates approved in the systems approval.

Section 11 Report

The annual report must contain the following:

- A brief description of the drinking water system and a list of chemicals used by the system.
- A description of any major expenses incurred during the period covered by the report to install, repair or replace required equipment.
- A summary of all adverse water quality incidents (AWQI) reported to the Ministry.
- A summary of corrective actions taken in response all AWQIs
- A summary of all test results required under the regulation, under an approval, municipal drinking water licence or order, including an OWRA order.
- A statement of where a Schedule 22 report will be available for inspection.

The report must be prepared by February 28th of the year following the year to which the report pertains.

Regulation 387 Report

On or before March 31 in every year, every holder of a permit to take water (PTTW) shall submit to a Director the data collected and recorded for the previous year.

A record of annual water taking can be found in Appendix A.



SECTION 3: SCHEDULE 22 REPORT

Flows - Treated

In accordance with the Municipal Drinking Water License (MDWL), the Manitowaning WTP shall not be operated to exceed a maximum daily volume of 1045 m³/d to the distribution system.

The daily treated water maximum flow was 556 m³ in July and represents 52% of capacity. In 2024, the total volume of water sent to the distribution system was 112,074 m³

The quantity of treated water supplied during the reporting period **did not** exceed the rated maximum capacity.

Treated Water Flow Data				
Month	Total Monthly Flow (m ³)	Average Flow (m ³ /d)	Maximum Flow (m ³ /d)	Limit Rated Capacity m ³ /d
January	9,868.00	318.32	359.00	1,045
February	9,692.00	334.21	365.00	1,045
March	9,903.00	319.45	348.00	1,045
April	9,961.00	332.03	366.00	1,045
May	12,262.00	395.55	481.00	1,045
June	13,086.00	436.20	518.00	1,045
July	11,479.00	382.63	556.00	1,045
August	8,475.00	273.39	369.00	1,045
September	6,844.00	228.13	288.00	1,045
October	7,128.00	229.94	280.00	1,045
November	6,715.00	223.83	248.00	1,045
December	6,661.00	214.87	242.00	1,045
Total	112,074.00			1,045
Average	9,339.50	307.38		1,045
Maximum	13,086.00		556.00	1,045

Flows - Raw

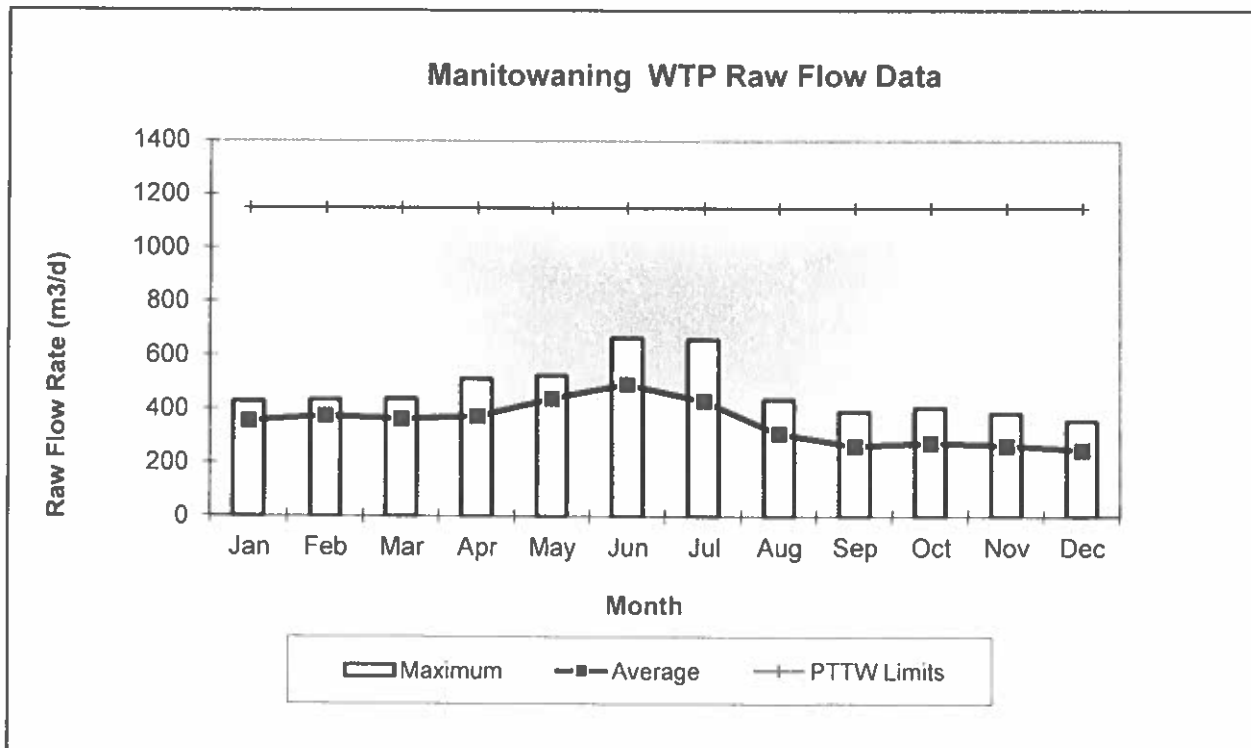
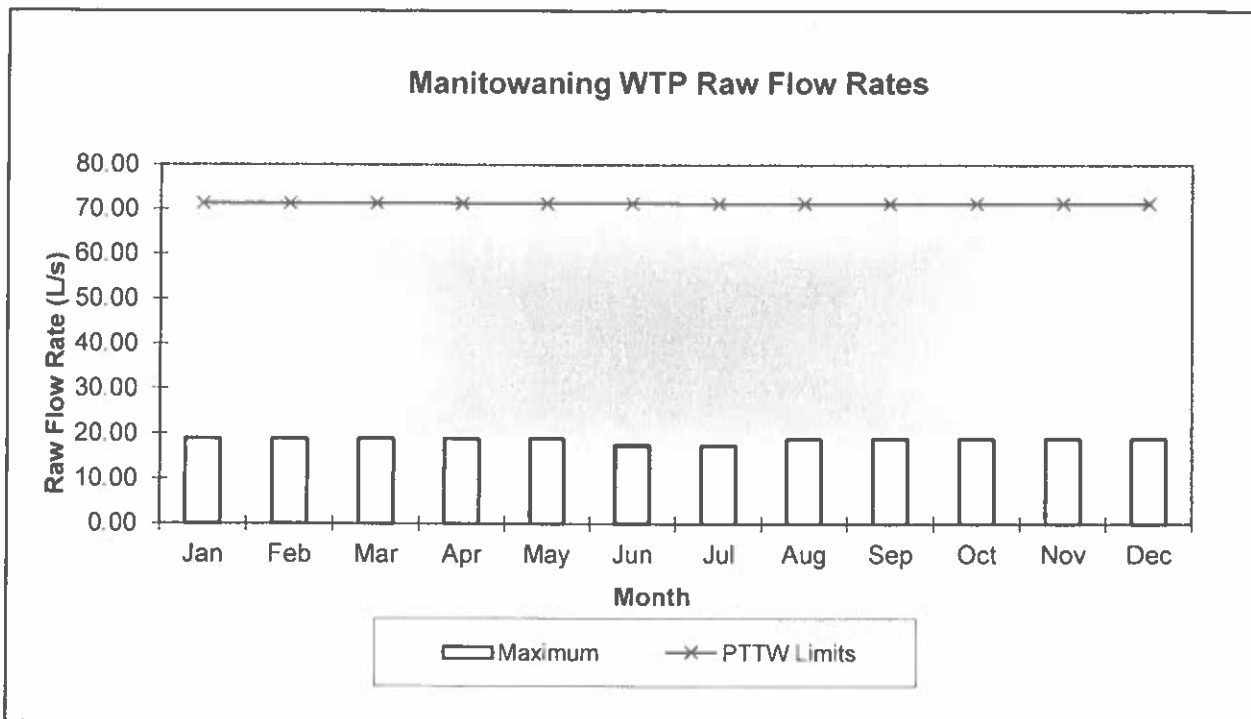
The PTTW authorized flow limits are stipulated at a maximum rate of 71.32 L/s and a maximum daily volume of 1149.12m³/d.

The average monthly raw water flow for this reporting period was 349.08 m³/d. The maximum daily flow was 663 m³/d representing 58% of water taking limits. In 2024, the total volume of water taken from the environment was 127,284 m³.



The quantity of raw water taken **did not** exceed any limits stipulated within the PTTW.

RAW WATER FLOW DATA - TOTAL ALL SOURCES						
Month	Total Monthly Flow (m3)	Average Flow (m3/d)	Maximum Flow (m3/d)	Maximum Flow Rate (L/s)	Limits	
					L/s (PTTW)	m³/d (PTTW)
January	11,025.00	355.65	427	18.92	71.32	1149.12
February	10,862.00	374.55	433	18.92	71.32	1149.12
March	11,242.00	362.65	437	18.92	71.32	1149.12
April	11,202.00	373.40	511	18.92	71.32	1149.12
May	13,619.00	439.32	523	18.92	71.32	1149.12
June	14,763.00	492.10	663	17.42	71.32	1149.12
July	12,922.00	430.73	658	17.43	71.32	1149.12
August	9,570.00	308.71	435	18.92	71.32	1149.12
September	7,896.00	263.20	389	18.92	71.32	1149.12
October	8,511.00	274.55	405	18.92	71.32	1149.12
November	7,950.00	265.00	383	18.92	71.32	1149.12
December	7,722.00	249.10	355	18.92	71.32	1149.12
Total	127,284					
Average		349.08				
Maximum			663	18.92	71.32	1149.12





Annual Raw Water Review

Raw Water Taking	Total Taking m3/d	Average Day m3/d	Max Day m3/d	Max Day % of PTTW allowable 1149.12 m3/d
2024	127,284	349.08	663	58%
2023	138,299	378.9	818	71%
2022	121,824.8	333.8	678	59%
2021	141,509.4	387.7	822	71.5%
2020	132,013	360.69	682	59%

System Failures and Corrective Actions

The latest inspection of the drinking water facility took place on July 18, 2024. The facility scored 0/500 providing a rating of 100%

The following non-compliances were reported to the MECP during the 2024 reporting period:

1. The WTP operator completed the monthly filter efficiency review for the Manitowaning WTP for the month of May after the required 72 hour window. The review was completed on Tuesday, June 4th, 2024 and all filters passed. The reason for the late review is that we were short staffed on Monday June 3rd, 2024 and the operator was dealing with a low chlorine alarm at another facility. The PDF sampling calendar, which is the document the operator was using to determine which sampling needed to be performed on any given day, was printed and located at the plant. As the operator did not physically attend the Manitowaning WTP on Monday, June 3rd the review was missed. We discovered that the operator had not been given access to the online Outlook sampling calendars and we have since rectified that so that the required sampling for a facility can be viewed online from offsite going forward.
2. The WTP operator completed weekly sampling for the Manitowaning DWS on Wednesday, December 18th, 2024, with the last sample on that date being collected at 12:05 p.m. The WTP operator completed the next round of weekly sampling on Monday, December 23rd, 2024, with the earliest sample on that date being collected at 10:00 a.m. These samples were not collected within the minimum timeframe of 5 days as they should have been taken after 12:05 p.m. to meet the time definition requirement. This was a result of an operator error as we had to adjust our sampling dates to work with the lab's holiday closures. The operator has been advised of this error and knows to watch for this in the future.



AWQIs reported to the Ministry

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
15-Mar-24	N/A	N/A	N/A	AWQI # 164638 - Eastlink internet outage causing facility to have no working alarms. We had operators monitoring the sites until the internet was restored and alarms were tested and working properly again.	15-Mar-24
13-Jul-24	N/A	N/A	N/A	AWQI # 165569 - Watermain/valve break on an 8" line. No drinking water advisory issued. Repair completed.	16-Jul-24
18-Aug-24	N/A	N/A	N/A	AWQI # 166027 - During a major power outage the generator overheated and shut down due to a blown line causing a loss of pressure in the system. HU issued a DWA. Once power was restored the distribution system was flushed and numerous chlorine residual samples were taken. The highest value was 1.43mg/l and the lowest was 1.31mg/l. Following the issue of the advisory the people of the town were notified and fresh water was made available. Two sets of two samples were taken and sent to TestMark labs as asked by the health unit. Following both sets of sample results coming back non detect for EC/TC the health unit was notified and the advisory was lifted.	21-Aug-24



SECTION 4: SECTION 11 REPORT

Information to be provided

Population Served	550
Does your Drinking-Water System serve more than 10,000 people?	No
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.	Township of Assiginack, Municipal Office 156 Arthur Street Manitowaning, Ontario P0P 1N0
Number of Designated Facilities served:	0
Did you provide a copy of your annual report to all Designated Facilities you serve?	NA
Number of Interested Authorities you report to:	0
Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility?	NA
List all Drinking-Water Systems (if any), and their DWS Number which receive all of their drinking water from your system:	N/A
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?	N/A
Indicate how you notified system users that your annual report is available, and is free of charge.	Public access/notice via newspaper
Indicate if you notified system users that your annual report is available and is free of charge using an alternate method	Yes

An Evoqua membrane filtration plant supplying water to the Town of Manitowaning drawing water from Lake Huron, consisting of three membrane filter trains a chlorine contact reservoir, clear well and five high lift pumps supplying the Town. Sodium Hypochlorite is used for primary disinfection as well as seasonally for zebra mussel control in the raw water intake. The rated capacity of the system is 12.1 L/s. Wastewater from backwash and filter cleans is neutralized and diverted to the sanitary sewer system.

The utility serves the Town of Manitowaning and has over 5,150 meters of pipeline of various sizes constructed of PVC and cast iron, approximately 52 hydrants and 97 valves. The Manitowaning Water Treatment Facility's distribution system includes various chlorine residual check points.

Chemicals Used

Sodium Hypochlorite (12%)	Disinfection and clean-in-place
Sodium Hydroxide	Neutralization of wastewater
Citric Acid	Clean-in-place
Calcium Thiosulphate (Captor)	Dechlorination of reject water & wastewater



Significant Expenses

Significant expenses incurred to

- Install required equipment
- Repair required equipment
- Replace required equipment

Work Order	Date Completed	Comment
3705185	13-Feb-24	Clearwell level indicating transmitter replacement - \$4,600.66
3525638	29-Apr-2024	Pre-hypo board installation labor - board billed in 2023 - \$1,102.01
4050718	23-Jul-2024	Distribution leak repair and non-routine samples - \$2,417.61
3385385	05-Dec-24	New backwash submersible pump purchase and installation - \$5,124.60
4001551	19-Dec-2024	Generator repairs - \$2,139.20

Adverse Water Quality Incidents

Provide 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	Parameter	Result	Unit of Measure	Comment / Corrective Action	Corrective Action Date
15-Mar-24	N/A	N/A	N/A	AWQI # 164638 - Eastlink internet outage causing facility to have no working alarms. We had operators monitoring the sites until the internet was restored and alarms were tested and working properly again.	18-Mar-24
13-Jul-24	N/A	N/A	N/A	AWQI # 165569 - Watermain/valve break on an 8" line. No drinking water advisory issued. Repair completed.	16-Jul-24
18-Aug-24	N/A	N/A	N/A	AWQI # 166027 - During a major power outage the generator overheated and shut down due to a blown line causing a loss of pressure in the system. HU issued a DWA. Once power was restored the distribution system was flushed and numerous chlorine residual samples were taken. The highest value was 1.43mg/l and the lowest was 1.31mg/l. Following the issue of the advisory the people of the town were notified and fresh water was made available. Two sets of two samples were taken and sent to TestMark labs as asked by the health unit. Following both sets of sample results coming back non detect for EC/TC the health unit was notified and the advisory was lifted.	21-Aug-24



Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03

	No. of Samples Collected	Range of E.Coli		Range of Total Coliform Results		Number of HPC Samples	Range of HPC Results	
		Min #	Max #	Min #	Max #		Min #	Max #
Raw Water	53	0	NDOGT	0	12	0	N/A	N/A
Treated Water	53	0	0	0	0	53	0	86
Distribution	107	0	0	0	0	53	0	600

Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03

	No. of Samples Collected	Range of Results		Units of Measure
		Minimum	Maximum	
Turbidity – Filter 1	8760	0	1.2	(NTU)
Turbidity – Filter 2	8760	0	0.68	(NTU)
Turbidity – Filter 3	8760	0.01	0.02	(NTU)
Free Chlorine Residual – TW	8760	0.44	3.15	(mg/L)
Free Chlorine Residual, Distribution Location 1	105	1.17	2.01	(mg/L)
Free Chlorine Residual, Distribution Location 2	105	1.11	1.91	(mg/L)
Free Chlorine Residual, Distribution Location 3	105	1.20	1.98	(mg/L)
Free Chlorine Residual, Distribution Location 4	54	1.22	1.93	(mg/L)

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 and limits	Month Sampled	Day Sampled	Result	Unit of Measure
254-202 Issue Date: January 24, 2022 Expiry Date: January 23, 2027	Backwash (BW) Total Suspended Solids (TSS) 25 mg/L annual average Quarterly samples when discharging into Manitowaning Bay	Jan	N/A		mg/L
		Feb	N/A		mg/L
		Mar	N/A		mg/L
		Apr	N/A		mg/L
		May	N/A		mg/L
		Jun	N/A		mg/L
		Jul	N/A		mg/L
		Aug	N/A		mg/L
		Sep	N/A		mg/L
		Oct	N/A		mg/L
		Nov	N/A		mg/L
		Dec	N/A		mg/L
		Annual Average			



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

TREATED WATER	Sample Date (yyyy/mm/dd)	Sample Result	MAC	No. of Exceedances	
				MAC	1/2 MAC
Antimony: Sb (ug/L) - TW	2024/01/08	< MDL 0.6	6	No	No
Arsenic: As (ug/L) - TW	2024/01/08	0.4	10	No	No
Barium: Ba (ug/L) - TW	2024/01/08	12.7	1000	No	No
Boron: B (ug/L) - TW	2024/01/08	11	5000	No	No
Cadmium: Cd (ug/L) - TW	2024/01/08	< MDL 0.003	5	No	No
Chromium: Cr (ug/L) - TW	2024/01/08	0.23	50	No	No
Mercury: Hg (ug/L) - TW	2024/01/08	< MDL 0.01	1	No	No
Selenium: Se (ug/L) - TW	2024/01/08	0.11	50	No	No
Uranium: U (ug/L) - TW	2024/01/08	0.175	20	No	No

TREATED WATER	Sample Date (yyyy/mm/dd)	Sample Result	MAC	No. of Exceedances	
				MAC	1/2 MAC
Fluoride (mg/L) - TW	2024/01/08	< MDL 0.06	1.5	No	No
Nitrate : (mg/L) - TW	2024/01/08	0.151	10	No	No
Nitrate : (mg/L) - TW	2024/04/15	0.148	10	No	No
Nitrate : (mg/L) - TW	2024/07/22	0.098	10	No	No
Nitrate : (mg/L) - TW	2024/10/22	0.103	10	No	No
Nitrite : (mg/L) - TW	2024/01/08	< MDL 0.003	1	No	No
Nitrite : (mg/L) - TW	2024/04/15	< MDL 0.003	1	No	No
Nitrite : (mg/L) - TW	2024/07/22	< MDL 0.003	1	No	No
Nitrite : (mg/L) - TW	2024/10/22	< MDL 0.003	1	No	No
Sodium / Na (mg/L) - TW	2024/01/08	6.26	20*	No	No

*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.

Summary of Lead testing under Schedule 15.1 during this reporting period

Location Type	Number of Samples	Range of Results		MAC (ug/L)	Number of Exceedances
		Minimum	Maximum		
Distribution - Lead Results (ug/L)	2	0.08	0.125	10	0
Distribution - Alkalinity (mg/L)	4	68	72	n/a	n/a
Distribution - pH In-House	4	7.47	8.14	n/a	n/a



Summary of Organic parameters sampled during this reporting period or the most recent results

TREATED WATER	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
1,1-Dichloroethylene (ug/L)-TW	2024/01/08	< MDL 0.33	14	No	No
1,2-Dichlorobenzene (ug/L)-TW	2024/01/08	< MDL 0.41	200	No	No
1,2-Dichloroethane (ug/L)-TW	2024/01/08	< MDL 0.35	5	No	No
1,4-Dichlorobenzene (ug/L)-TW	2024/01/08	< MDL 0.36	5	No	No
2,3,4,6-Tetrachlorophenol (ug/L)-TW	2024/01/08	< MDL 0.2	100	No	No
2,4,6-Trichlorophenol (ug/L)-TW	2024/01/08	< MDL 0.25	5	No	No
2,4-Dichlorophenol (ug/L)-TW	2024/01/08	< MDL 0.15	900	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L)-TW	2024/01/08	< MDL 0.19	100	No	No
2-methyl-4-chlorophenoxyacetic acid (MCPA) (ug/L)-TW	2024/01/08	< MDL 0.12	100	No	No
Alachlor (ug/L) -TW	2024/01/08	< MDL 0.02	5	No	No
Atrazine + N-dealkylated metabolites (ug/L)-TW	2024/01/08	0.02	5	No	No
Azinphos-methyl (ug/L)-TW	2024/01/08	< MDL 0.05	20	No	No
Benzene (ug/L)-TW	2024/01/08	< MDL 0.32	1	No	No
Benzo(a)pyrene (ug/L)-TW	2024/01/08	< MDL 0.004	0.01	No	No
Bromoxynil (ug/L)-TW	2024/01/08	< MDL 0.33	5	No	No
Carbaryl (ug/L)-TW	2024/01/08	< MDL 0.05	90	No	No
Carbofuran (ug/L) -TW	2024/01/08	< MDL 0.01	90	No	No
Carbon Tetrachloride (ug/L) -TW	2024/01/08	< MDL 0.17	2	No	No
Chlorpyrifos (ug/L) -TW	2024/01/08	< MDL 0.02	90	No	No
Diazinon (ug/L)-TW	2024/01/08	< MDL 0.02	20	No	No
Dicamba (ug/L)-TW	2024/01/08	< MDL 0.2	120	No	No
Dichloromethane (Methylene Chloride) (ug/L)-TW	2024/01/08	< MDL 0.35	50	No	No
Diclofop-methyl (ug/L)-TW	2024/01/08	< MDL 0.4	9	No	No
Dimethoate (ug/L)-TW	2024/01/08	< MDL 0.06	20	No	No
Diquat (ug/L)-TW	2024/01/08	< MDL 1	70	No	No
Diuron (ug/L)-TW	2024/01/08	< MDL 0.03	150	No	No
Glyphosate (ug/L)-TW	2024/01/08	< MDL 1	280	No	No
Malathion (ug/L)-TW	2024/01/08	< MDL 0.02	190	No	No
Metolachlor (ug/L)-TW	2024/01/08	< MDL 0.01	50	No	No
Metribuzin (ug/L)-TW	2024/01/08	< MDL 0.02	80	No	No
Monochlorobenzene (Chlorobenzene) (ug/L)-TW	2024/01/08	< MDL 0.3	80	No	No
Paraquat (ug/L)-TW	2024/01/08	< MDL 1	10	No	No
PCB (ug/L)-TW	2024/01/08	< MDL 0.04	3	No	No
Pentachlorophenol (ug/L)-TW	2024/01/08	< MDL 0.15	60	No	No
Phorate (ug/L)-TW	2024/01/08	< MDL 0.01	2	No	No
Picloram (ug/L)-TW	2024/01/08	< MDL 1	190	No	No
prometryne (ug/L)-TW	2024/01/08	< MDL 0.03	1	No	No
Simazine (ug/L)-TW	2024/01/08	< MDL 0.01	10	No	No
Terbufos (ug/L)-TW	2024/01/08	< MDL 0.01	1	No	No



Tetrachloroethylene (ug/L)-TW	2024/01/08	< MDL 0.35	10	No	No
Triallate (ug/L) -TW	2024/01/08	< MDL 0.01	230	No	No
Trichloroethylene (ug/L)-TW	2024/01/08	< MDL 0.44	5	No	No
Trifluralin (ug/L)-TW	2024/01/08	< MDL 0.02	45	No	No
Vinyl Chloride (ug/L)-TW	2024/01/08	< MDL 0.17	1	No	No
DISTRIBUTION WATER					
Trihalomethane: Running Annual Average – DW1(ug/L)	2024/12/31	39.3	100.00	No	No
HAA: Running Annual Average – DW1 (ug/L)	2024/12/31	27.1	80.0	No	No

SECTION 5: RAW WATER SUBMISSIONS

Raw water flows were submitted to the Ministry on January 27, 2025.



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: 7278-BALLLV
Permit Holder: THE CORPORATION OF THE TOWNSHIP OF ASSIGINACK.
Received on: Jan 27, 2025 11:28 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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SECTION 6: CONCLUSION

The drinking water inspection found the plant to be producing good quality water. A review of the treated water samples showed the plant met or exceeded the requirements of ODWS (Ontario's Drinking-Water Standards). Treated water samples at the plant and in the distribution system were shown to be free of bacteriological contaminants.

Based on information available for the 2024 operating year, the Manitowaning WTP was able to meet the demand of water use within the town without exceeding the Municipal Drinking Water Licence and Permit to Take Water max daily liter stipulations.



List of Acronyms and Definitions

Alkalinity	The capacity of water for neutralizing an acid solution
AWQI	Adverse Water Quality Incident- when a water sample test result exceeds the Ontario Drinking Water Quality Standards
Backwash	Water pumped backwards to clean filters
BWA	Boil Water Advisory; Issued when risk of contamination is possible in drinking water
CFU	Colony Forming Units
Chlorine Residual	A low level of chlorine remaining in water after disinfection occurs
DW	Distribution Water
DWA	Drinking Water Advisory; Issued when water cannot be consumed by any means
DWWP	Drinking Water Works Permit - provides a description of the overall system
E.Coli	Bacteria used as indicators to measure the degree of pollution and sanitary quality of water
GUDI 170/03	Groundwater Under Direct Influence – Considered to be surface water under O.Reg
HPC	Heterotrophic Plant Count
L/s	Litres per Second
m ³ /d	Cubic Metres per Day
MAC	Maximum Acceptable Concentration
MDL	Minimum Detection Level
MDWL requirements	Municipal Drinking Water Licence - relates to the operation and performance
mg/L	Miligrams per Litre
Ministry	Ministry of the Environment, Conservation and Parks
MECP	Ministry of the Environment, Conservation and Parks
NDOGN	No Data: Overgrown with Non Target Bacteria
NDOGT	No Data: Overgrown with Target Bacteria
O.Reg	Ontario Regulation
PTTW water	Permit to Take Water – Permit which allows water taking from groundwater or surface water
RW	Raw Water
TC	Total Coliforms
TSS	Total Suspended Solids
Turbidity	Cloudiness or haziness of water
TW	Treated Water