



Ontario Clean Water Agency
Agence Ontarienne Des Eaux

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February 28, 2024

Alton Hobbs, Chief Administrative Officer
The Corporation of the Township of Assiginack
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 2023 Annual and Summary Reports for the Manitowaning Water System. The Reports are based on information provided by Operators as of February 20, 2024 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 is 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, 2024. Please ensure this distribution.

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,

Sarah Beaulieu
Process & Compliance Technician
Ontario Clean Water Agency

Manitowaning Water Treatment

Large Municipal Residential Drinking Water System

January 1, 2023 – December 31, 2023

***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 Assiginack
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, 2024.

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 not later than February 28 of the following year.

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 517 m³ in August and represents 49% of capacity. In 2023, the total volume of water sent to the distribution system was 122,981 m³

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

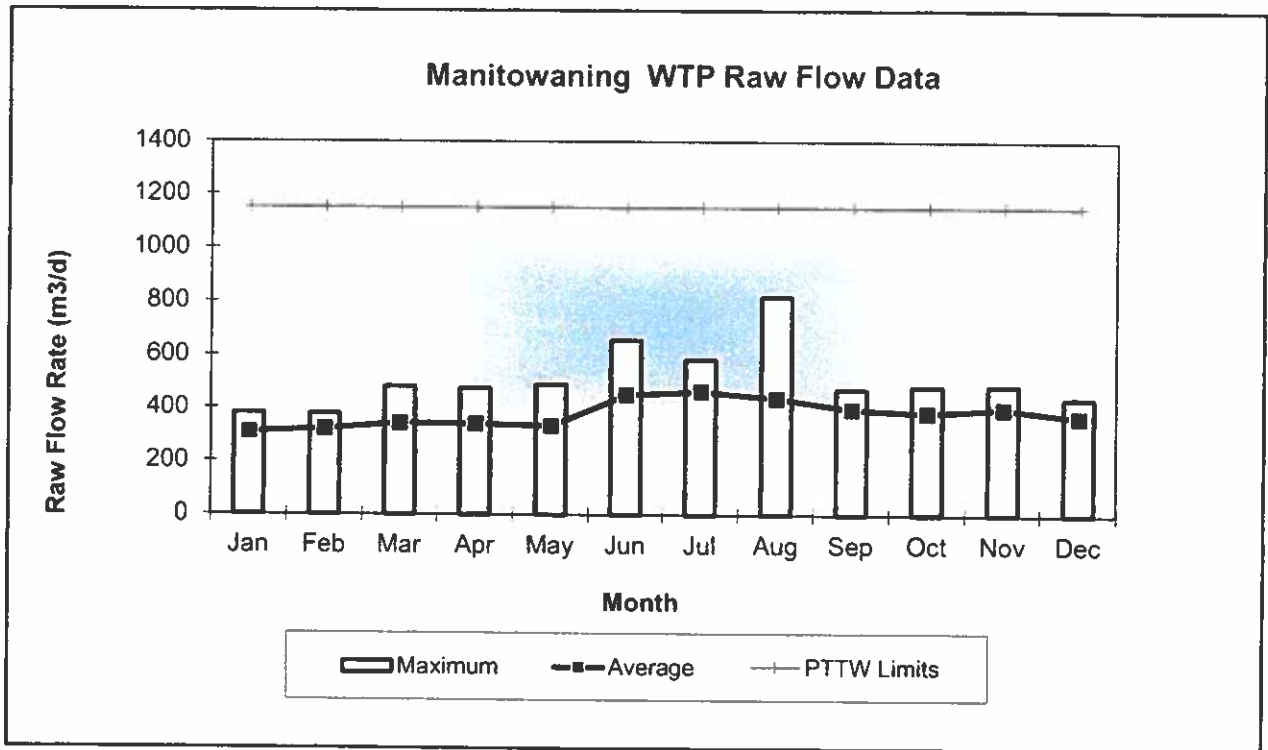
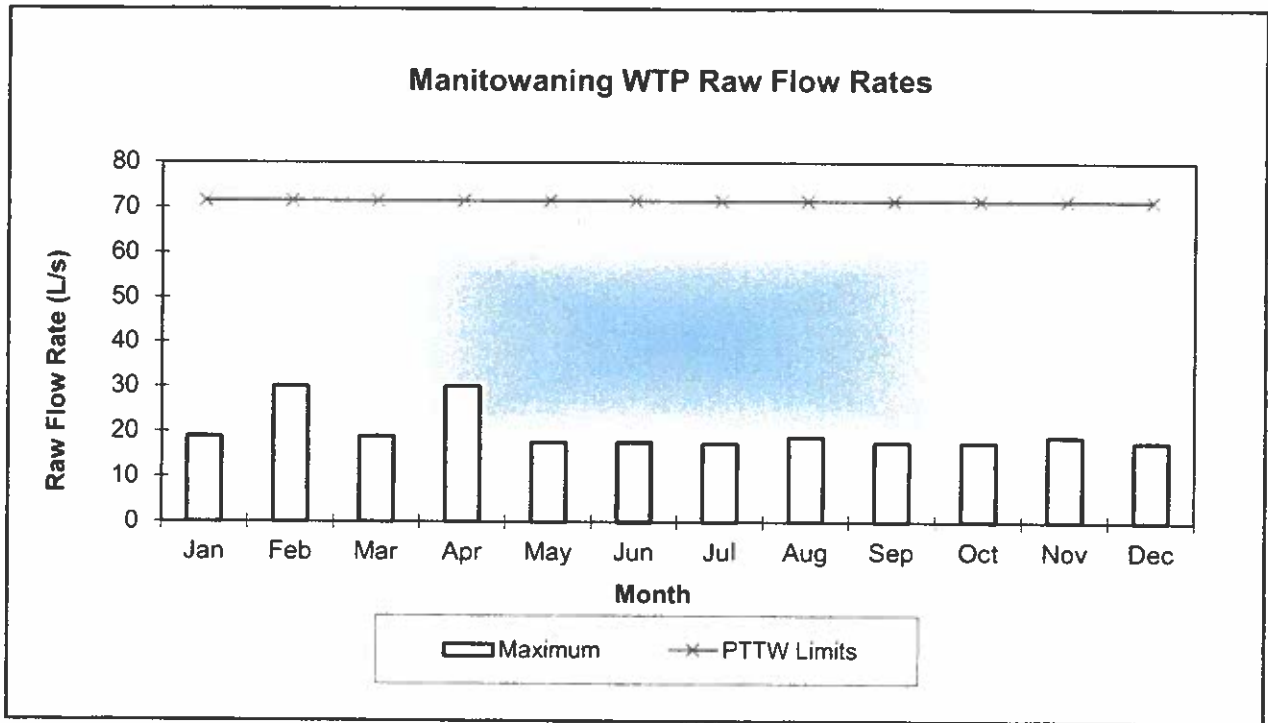
Flows - Raw

Daily raw maximum instantaneous flow is stated in the PTTW at a maximum rate of flow 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 378.9 m³/d. The maximum daily flow was 818 m³/d representing 71% of water taking limits. In 2023, the total volume of water taken from the environment was 138,299 m³.

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

<i>RAW WATER FLOW DATA - TOTAL ALL SOURCES</i>						
Month	Total Monthly Flow (m3)	Average Flow (m3/d)	Maximum Flow (m3/d)	Maximum Flow Rate (L/s)	Limits	
					L/s (PTTW)	m ³ /d (PTTW)
January	9,574	308.84	381	18.92	71.32	1149.12
February	8,966	320.21	377	30	71.32	1149.12
March	10,610	342.26	481	18.92	71.32	1149.12
April	10,209	340.3	475	30	71.32	1149.12
May	10,342	333.61	489	17.59	71.32	1149.12
June	13,525	450.83	656	17.66	71.32	1149.12
July	14,391	464.23	584	17.49	71.32	1149.12
August	13,572	437.81	818	18.92	71.32	1149.12
September	11,910	397	471	17.59	71.32	1149.12
October	11,848	382.19	482	17.58	71.32	1149.12
November	11,970	399	484	18.92	71.32	1149.12
December	11,382	367.16	438	17.74	71.32	1149.12
Total	138,299					
Average		378.9				
Maximum			818	30	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
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%
2019	104,954	287.55	497	43.3%

System Failures and Corrective Actions

The latest inspection of the drinking water facility took place on August 22, 2023. The facility scored 0/492 providing a rating of 100%

AWQIs reported to the Ministry

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
15-Jun-23	Total Coliform	2	cfu/100mL	After receiving notification of the adverse, MOH and SAC were notified. The location was resampled and an additional sample was collected upstream. The adverse location was at a dead-end therefore no downstream sample could be collected. Both samples were non detect for TC and EC.	20-Jun-23

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 Assignack, Municipal Office 156 Arthur Street Manitowaning, Ontario POP 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.

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
3385380	30-Jun-23	Low lift pump VFD repairs – \$6,010.96
	13-Oct-23	Processor #2 troubleshooting/repair and chlorine analyzer parts – \$6,733.08
3525638	13-Dec-23	Replacement of pre-chlorine chemical system – \$21,376.78
3527574	13-Dec-23	Replacement of 4 turbidity analyzers – \$26,626.73



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-Jun-23	Total Coliform	2	Cfu/100m L	After receiving notification of the adverse, MOH and SAC were notified. The location was resampled and an additional sample was collected upstream. The adverse location was at a deadend therefore no downstream sample could be collected. Both samples were non detect for TC and EC.	20-Jun-23

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	52	0	NDOGT	0	NDOGT	0	N/A	N/A
Treated Water	52	0	0	0	0	52	0	2
Distribution	106	0	0	0	2	53	0	67

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	0.93	(NTU)
Turbidity – Filter 2	8760	0	0.07	(NTU)
Turbidity – Filter 3	8760	0	0.08	(NTU)
Free Chlorine Residual – TW	8760	0.65	2.16	(mg/L)
Free Chlorine Residual, Distribution Location 1	104	1.35	2.18	(mg/L)
Free Chlorine Residual, Distribution Location 2	104	1.21	2.14	(mg/L)
Free Chlorine Residual, Distribution Location 3	104	1.39	2.18	(mg/L)
Free Chlorine Residual, Distribution Location 4	52	1.50	2.20	(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	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



Expiry Date: January 23, 2027	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		mg/L

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	2023/01/09	< MDL 0.6	6	No	No
Arsenic: As (ug/L) - TW	2023/01/09	0.4	10	No	No
Barium: Ba (ug/L) - TW	2023/01/09	14.1	1000	No	No
Boron: B (ug/L) - TW	2023/01/09	14	5000	No	No
Cadmium: Cd (ug/L) - TW	2023/01/09	0.003	5	No	No
Chromium: Cr (ug/L) - TW	2023/01/09	0.17	50	No	No
Mercury: Hg (ug/L) - TW	2023/01/09	< MDL 0.01	1	No	No
Selenium: Se (ug/L) - TW	2023/01/09	0.16	50	No	No
Uranium: U (ug/L) - TW	2023/01/09	0.177	20	No	No

TREATED WATER	Sample Date (yyyy/mm/dd)	Sample Result	MAC	No. of Exceedances	
				MAC	1/2 MAC
Fluoride (mg/L) - TW	2019/01/08	< MDL 0.06	1.5	No	No
Nitrate : (mg/L) - TW	2023/01/09	0.164	10	No	No
Nitrate : (mg/L) - TW	2023/04/11	0.185	10	No	No
Nitrate : (mg/L) - TW	2023/07/10	0.102	10	No	No
Nitrate : (mg/L) - TW	2023/10/10	0.111	10	No	No
Nitrite : (mg/L) - TW	2023/01/09	< MDL 0.003	1	No	No
Nitrite : (mg/L) - TW	2023/04/11	< MDL 0.003	1	No	No
Nitrite : (mg/L) - TW	2023/07/10	< MDL 0.003	1	No	No
Nitrite : (mg/L) - TW	2023/10/10	< MDL 0.003	1	No	No
Sodium / Na (mg/L) - TW	2019/01/08	6.37	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)	n/a			10	0
Distribution - Alkalinity (mg/L)	4	69	71	n/a	n/a
Distribution - pH In-House	4	8.26	8.61	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	2023/01/09	< MDL 0.33	14	No	No
1,2-Dichlorobenzene (ug/L)-TW	2023/01/09	< MDL 0.41	200	No	No
1,2-Dichloroethane (ug/L)-TW	2023/01/09	< MDL 0.35	5	No	No
1,4-Dichlorobenzene (ug/L)-TW	2023/01/09	< MDL 0.36	5	No	No
2,3,4,6-Tetrachlorophenol (ug/L)-TW	2023/01/09	< MDL 0.2	100	No	No
2,4,6-Trichlorophenol (ug/L)-TW	2023/01/09	< MDL 0.25	5	No	No
2,4-Dichlorophenol (ug/L)-TW	2023/01/09	< MDL 0.15	900	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L)-TW	2023/01/09	< MDL 0.19	100	No	No
2-methyl-4-chlorophenoxyacetic acid (MCPA) (ug/L)-TW	2023/01/09	< MDL 0.12	100	No	No
Alachlor (ug/L) -TW	2023/01/09	< MDL 0.02	5	No	No
Atrazine + N-dealkylated metabolites (ug/L)-TW	2023/01/09	< MDL 0.01	5	No	No
Azinphos-methyl (ug/L)-TW	2023/01/09	< MDL 0.05	20	No	No
Benzene (ug/L)-TW	2023/01/09	< MDL 0.32	1	No	No
Benzo(a)pyrene (ug/L)-TW	2023/01/09	< MDL 0.004	0.01	No	No
Bromoxynil (ug/L)-TW	2023/01/09	< MDL 0.33	5	No	No
Carbaryl (ug/L)-TW	2023/01/09	< MDL 0.05	90	No	No
Carbofuran (ug/L) -TW	2023/01/09	< MDL 0.01	90	No	No
Carbon Tetrachloride (ug/L) -TW	2023/01/09	< MDL 0.17	2	No	No
Chlorpyrifos (ug/L) -TW	2023/01/09	< MDL 0.02	90	No	No
Diazinon (ug/L)-TW	2023/01/09	< MDL 0.02	20	No	No
Dicamba (ug/L)-TW	2023/01/09	< MDL 0.2	120	No	No
Dichloromethane (Methylene Chloride) (ug/L)-TW	2023/01/09	< MDL 0.35	50	No	No
Diclofop-methyl (ug/L)-TW	2023/01/09	< MDL 0.4	9	No	No
Dimethoate (ug/L)-TW	2023/01/09	< MDL 0.06	20	No	No
Diquat (ug/L)-TW	2023/01/09	< MDL 1	70	No	No
Diuron (ug/L)-TW	2023/01/09	< MDL 0.03	150	No	No
Glyphosate (ug/L)-TW	2023/01/09	< MDL 1	280	No	No
Malathion (ug/L)-TW	2023/01/09	< MDL 0.02	190	No	No
Metolachlor (ug/L)-TW	2023/01/09	< MDL 0.01	50	No	No
Metribuzin (ug/L)-TW	2023/01/09	< MDL 0.02	80	No	No
Monochlorobenzene (Chlorobenzene) (ug/L)-TW	2023/01/09	< MDL 0.3	80	No	No
Paraquat (ug/L)-TW	2023/01/09	< MDL 1	10	No	No
PCB (ug/L)-TW	2023/01/09	< MDL 0.04	3	No	No
Pentachlorophenol (ug/L)-TW	2023/01/09	< MDL 0.15	60	No	No
Phorate (ug/L)-TW	2023/01/09	< MDL 0.01	2	No	No
Picloram (ug/L)-TW	2023/01/09	< MDL 1	190	No	No
Prometryne (ug/L)-TW	2023/01/09	< MDL 0.03	1	No	No
Simazine (ug/L)-TW	2023/01/09	< MDL 0.01	10	No	No
Terbufos (ug/L)-TW	2023/01/09	< MDL 0.01	1	No	No
Tetrachloroethylene (ug/L)-TW	2023/01/09	< MDL 0.35	10	No	No
Triallate (ug/L) -TW	2023/01/09	< MDL 0.01	230	No	No



Trichloroethylene (ug/L)-TW	2023/01/09	< MDL 0.44	5	No	No
Trifluralin (ug/L)-TW	2023/01/09	< MDL 0.02	45	No	No
Vinyl Chloride (ug/L)-TW	2023/01/09	< MDL 0.17	1	No	No
DISTRIBUTION WATER					
Trihalomethane: Total (ug/L) Annual Average - DW	2023/12/31	47.3	100.00	No	No
HAA Total (ug/L) Annual Average - DW	2023/12/31	27.1	80.0	No	No

SECTION 5: RAW WATER SUBMISSIONS

Raw water flows were submitted to the Ministry on January 24, 2024.



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-BALLV
Permit Holder: THE CORPORATION OF THE TOWNSHIP OF ASSIGINACK.
Received on: Jan 24, 2024 11:32 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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TOWNSHIP2 ASSIGINACK2 | 2024/01/24
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SECTION 6: CONCLUSION

The Manitowaning WTP delivers water that, in all its treated and distribution samples, indicates the water to be free of bacteriological contamination.

Based on information available for the 2023 operating year, the Manitowaning WTP was able to meet the demand of water use without exceeding the PTTW or the MDWL.



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



Appendix A

Raw Water Flows

Ontario Clean Water Agency
Annual Water Taking and Transfer Report
 From 01/01/2023 To 12/31/2023

Facility: MANITOWANING DRINKING WATER SYSTEM-5883
 Tag: Raw Flow: Sum (m3/d)
 Tag Group: Raw Water

Permit#: 7278-BALLLV
 Source Name: Lake Huron (Georgian Bay)
 Source: Lake
 Type:
 Purpose: Municipal

Coordinate Zone: 17
 Easting: 437565
 Northing: 5065825
 Method deter: Metered

Date Measured	Value (m ³ /d)	Value (Litres)
01/01/2023	297.0000	297000.0000
02/01/2023	313.0000	313000.0000
03/01/2023	352.0000	352000.0000
04/01/2023	326.0000	326000.0000
05/01/2023	301.0000	301000.0000
06/01/2023	283.0000	283000.0000
07/01/2023	312.0000	312000.0000
08/01/2023	300.0000	300000.0000
09/01/2023	301.0000	301000.0000
10/01/2023	318.0000	318000.0000
11/01/2023	300.0000	300000.0000
12/01/2023	290.0000	290000.0000
13/01/2023	311.0000	311000.0000
14/01/2023	352.0000	352000.0000
15/01/2023	298.0000	298000.0000
16/01/2023	301.0000	301000.0000
17/01/2023	307.0000	307000.0000
18/01/2023	285.0000	285000.0000
19/01/2023	381.0000	381000.0000
20/01/2023	271.0000	271000.0000
21/01/2023	267.0000	267000.0000
22/01/2023	356.0000	356000.0000
23/01/2023	315.0000	315000.0000
24/01/2023	267.0000	267000.0000
25/01/2023	306.0000	306000.0000
26/01/2023	275.0000	275000.0000
27/01/2023	308.0000	308000.0000
28/01/2023	335.0000	335000.0000
29/01/2023	332.0000	332000.0000
30/01/2023	320.0000	320000.0000
31/01/2023	294.0000	294000.0000
01/02/2023	275.0000	275000.0000
02/02/2023	327.0000	327000.0000
03/02/2023	281.0000	281000.0000
04/02/2023	336.0000	336000.0000
05/02/2023	317.0000	317000.0000
06/02/2023	329.0000	329000.0000
07/02/2023	278.0000	278000.0000
08/02/2023	287.0000	287000.0000
09/02/2023	300.0000	300000.0000
10/02/2023	350.0000	350000.0000
11/02/2023	301.0000	301000.0000

12/02/2023	308.0000	308000.0000
13/02/2023	314.0000	314000.0000
14/02/2023	324.0000	324000.0000
15/02/2023	324.0000	324000.0000
16/02/2023	337.0000	337000.0000
17/02/2023	302.0000	302000.0000
18/02/2023	303.0000	303000.0000
19/02/2023	296.0000	296000.0000
20/02/2023	376.0000	376000.0000
21/02/2023	309.0000	309000.0000
22/02/2023	317.0000	317000.0000
23/02/2023	345.0000	345000.0000
24/02/2023	327.0000	327000.0000
25/02/2023	333.0000	333000.0000
26/02/2023	325.0000	325000.0000
27/02/2023	377.0000	377000.0000
28/02/2023	368.0000	368000.0000
01/03/2023	337.0000	337000.0000
02/03/2023	430.0000	430000.0000
03/03/2023	437.0000	437000.0000
04/03/2023	392.0000	392000.0000
05/03/2023	425.0000	425000.0000
06/03/2023	481.0000	481000.0000
07/03/2023	434.0000	434000.0000
08/03/2023	247.0000	247000.0000
09/03/2023	400.0000	400000.0000
10/03/2023	342.0000	342000.0000
11/03/2023	334.0000	334000.0000
12/03/2023	304.0000	304000.0000
13/03/2023	350.0000	350000.0000
14/03/2023	319.0000	319000.0000
15/03/2023	297.0000	297000.0000
16/03/2023	361.0000	361000.0000
17/03/2023	340.0000	340000.0000
18/03/2023	362.0000	362000.0000
19/03/2023	339.0000	339000.0000
20/03/2023	321.0000	321000.0000
21/03/2023	283.0000	283000.0000
22/03/2023	285.0000	285000.0000
23/03/2023	275.0000	275000.0000
24/03/2023	249.0000	249000.0000
25/03/2023	299.0000	299000.0000
26/03/2023	337.0000	337000.0000
27/03/2023	388.0000	388000.0000
28/03/2023	295.0000	295000.0000
29/03/2023	299.0000	299000.0000
30/03/2023	337.0000	337000.0000
31/03/2023	311.0000	311000.0000
01/04/2023	359.0000	359000.0000
02/04/2023	252.0000	252000.0000
03/04/2023	224.0000	224000.0000
04/04/2023	366.0000	366000.0000
05/04/2023	361.0000	361000.0000
06/04/2023	293.0000	293000.0000
07/04/2023	299.0000	299000.0000
08/04/2023	475.0000	475000.0000
09/04/2023	365.0000	365000.0000
10/04/2023	227.0000	227000.0000
11/04/2023	392.0000	392000.0000
12/04/2023	394.0000	394000.0000
13/04/2023	209.0000	209000.0000

14/04/2023	332.0000	332000.0000
15/04/2023	365.0000	365000.0000
16/04/2023	327.0000	327000.0000
17/04/2023	350.0000	350000.0000
18/04/2023	301.0000	301000.0000
19/04/2023	324.0000	324000.0000
20/04/2023	250.0000	250000.0000
21/04/2023	398.0000	398000.0000
22/04/2023	419.0000	419000.0000
23/04/2023	381.0000	381000.0000
24/04/2023	379.0000	379000.0000
25/04/2023	356.0000	356000.0000
26/04/2023	365.0000	365000.0000
27/04/2023	337.0000	337000.0000
28/04/2023	383.0000	383000.0000
29/04/2023	399.0000	399000.0000
30/04/2023	327.0000	327000.0000
01/05/2023	341.0000	341000.0000
02/05/2023	270.0000	270000.0000
03/05/2023	309.0000	309000.0000
04/05/2023	320.0000	320000.0000
05/05/2023	378.0000	378000.0000
06/05/2023	275.0000	275000.0000
07/05/2023	288.0000	288000.0000
08/05/2023	218.0000	218000.0000
09/05/2023	312.0000	312000.0000
10/05/2023	331.0000	331000.0000
11/05/2023	290.0000	290000.0000
12/05/2023	329.0000	329000.0000
13/05/2023	384.0000	384000.0000
14/05/2023	355.0000	355000.0000
15/05/2023	251.0000	251000.0000
16/05/2023	339.0000	339000.0000
17/05/2023	293.0000	293000.0000
18/05/2023	316.0000	316000.0000
19/05/2023	327.0000	327000.0000
20/05/2023	232.0000	232000.0000
21/05/2023	394.0000	394000.0000
22/05/2023	366.0000	366000.0000
23/05/2023	373.0000	373000.0000
24/05/2023	378.0000	378000.0000
25/05/2023	359.0000	359000.0000
26/05/2023	339.0000	339000.0000
27/05/2023	361.0000	361000.0000
28/05/2023	348.0000	348000.0000
29/05/2023	489.0000	489000.0000
30/05/2023	368.0000	368000.0000
31/05/2023	409.0000	409000.0000
01/06/2023	355.0000	355000.0000
02/06/2023	444.0000	444000.0000
03/06/2023	450.0000	450000.0000
04/06/2023	433.0000	433000.0000
05/06/2023	453.0000	453000.0000
06/06/2023	428.0000	428000.0000
07/06/2023	486.0000	486000.0000
08/06/2023	429.0000	429000.0000
09/06/2023	397.0000	397000.0000
10/06/2023	475.0000	475000.0000
11/06/2023	391.0000	391000.0000
12/06/2023	390.0000	390000.0000
13/06/2023	317.0000	317000.0000

14/06/2023	210.0000	210000.0000
15/06/2023	141.0000	141000.0000
16/06/2023	441.0000	441000.0000
17/06/2023	524.0000	524000.0000
18/06/2023	656.0000	656000.0000
19/06/2023	656.0000	656000.0000
20/06/2023	609.0000	609000.0000
21/06/2023	566.0000	566000.0000
22/06/2023	480.0000	480000.0000
23/06/2023	563.0000	563000.0000
24/06/2023	579.0000	579000.0000
25/06/2023	506.0000	506000.0000
26/06/2023	429.0000	429000.0000
27/06/2023	432.0000	432000.0000
28/06/2023	454.0000	454000.0000
29/06/2023	465.0000	465000.0000
30/06/2023	366.0000	366000.0000
01/07/2023	491.0000	491000.0000
02/07/2023	494.0000	494000.0000
03/07/2023	518.0000	518000.0000
04/07/2023	584.0000	584000.0000
05/07/2023	504.0000	504000.0000
06/07/2023	354.0000	354000.0000
07/07/2023	490.0000	490000.0000
08/07/2023	401.0000	401000.0000
09/07/2023	505.0000	505000.0000
10/07/2023	515.0000	515000.0000
11/07/2023	435.0000	435000.0000
12/07/2023	437.0000	437000.0000
13/07/2023	550.0000	550000.0000
14/07/2023	494.0000	494000.0000
15/07/2023	309.0000	309000.0000
16/07/2023	485.0000	485000.0000
17/07/2023	552.0000	552000.0000
18/07/2023	543.0000	543000.0000
19/07/2023	550.0000	550000.0000
20/07/2023	406.0000	406000.0000
21/07/2023	414.0000	414000.0000
22/07/2023	415.0000	415000.0000
23/07/2023	430.0000	430000.0000
24/07/2023	460.0000	460000.0000
25/07/2023	547.0000	547000.0000
26/07/2023	376.0000	376000.0000
27/07/2023	443.0000	443000.0000
28/07/2023	461.0000	461000.0000
29/07/2023	439.0000	439000.0000
30/07/2023	430.0000	430000.0000
31/07/2023	359.0000	359000.0000
01/08/2023	588.0000	588000.0000
02/08/2023	540.0000	540000.0000
03/08/2023	489.0000	489000.0000
04/08/2023	374.0000	374000.0000
05/08/2023	556.0000	556000.0000
06/08/2023	366.0000	366000.0000
07/08/2023	491.0000	491000.0000
08/08/2023	384.0000	384000.0000
09/08/2023	486.0000	486000.0000
10/08/2023	437.0000	437000.0000
11/08/2023	349.0000	349000.0000
12/08/2023	426.0000	426000.0000
13/08/2023	453.0000	453000.0000

14/08/2023	440.0000	440000.0000
15/08/2023	476.0000	476000.0000
16/08/2023	688.0000	688000.0000
17/08/2023	818.0000	818000.0000
18/08/2023	202.0000	202000.0000
19/08/2023	158.0000	158000.0000
20/08/2023	395.0000	395000.0000
21/08/2023	437.0000	437000.0000
22/08/2023	378.0000	378000.0000
23/08/2023	384.0000	384000.0000
24/08/2023	371.0000	371000.0000
25/08/2023	395.0000	395000.0000
26/08/2023	410.0000	410000.0000
27/08/2023	399.0000	399000.0000
28/08/2023	477.0000	477000.0000
29/08/2023	391.0000	391000.0000
30/08/2023	422.0000	422000.0000
31/08/2023	392.0000	392000.0000
01/09/2023	420.0000	420000.0000
02/09/2023	444.0000	444000.0000
03/09/2023	414.0000	414000.0000
04/09/2023	471.0000	471000.0000
05/09/2023	464.0000	464000.0000
06/09/2023	443.0000	443000.0000
07/09/2023	372.0000	372000.0000
08/09/2023	401.0000	401000.0000
09/09/2023	390.0000	390000.0000
10/09/2023	417.0000	417000.0000
11/09/2023	420.0000	420000.0000
12/09/2023	405.0000	405000.0000
13/09/2023	402.0000	402000.0000
14/09/2023	422.0000	422000.0000
15/09/2023	380.0000	380000.0000
16/09/2023	383.0000	383000.0000
17/09/2023	358.0000	358000.0000
18/09/2023	420.0000	420000.0000
19/09/2023	423.0000	423000.0000
20/09/2023	334.0000	334000.0000
21/09/2023	350.0000	350000.0000
22/09/2023	346.0000	346000.0000
23/09/2023	418.0000	418000.0000
24/09/2023	332.0000	332000.0000
25/09/2023	334.0000	334000.0000
26/09/2023	389.0000	389000.0000
27/09/2023	460.0000	460000.0000
28/09/2023	324.0000	324000.0000
29/09/2023	314.0000	314000.0000
30/09/2023	460.0000	460000.0000
01/10/2023	400.0000	400000.0000
02/10/2023	341.0000	341000.0000
03/10/2023	389.0000	389000.0000
04/10/2023	412.0000	412000.0000
05/10/2023	320.0000	320000.0000
06/10/2023	316.0000	316000.0000
07/10/2023	414.0000	414000.0000
08/10/2023	374.0000	374000.0000
09/10/2023	403.0000	403000.0000
10/10/2023	349.0000	349000.0000
11/10/2023	291.0000	291000.0000
12/10/2023	417.0000	417000.0000
13/10/2023	284.0000	284000.0000

14/10/2023	417.0000	417000.0000
15/10/2023	383.0000	383000.0000
16/10/2023	291.0000	291000.0000
17/10/2023	410.0000	410000.0000
18/10/2023	363.0000	363000.0000
19/10/2023	311.0000	311000.0000
20/10/2023	416.0000	416000.0000
21/10/2023	411.0000	411000.0000
22/10/2023	302.0000	302000.0000
23/10/2023	445.0000	445000.0000
24/10/2023	482.0000	482000.0000
25/10/2023	356.0000	356000.0000
26/10/2023	482.0000	482000.0000
27/10/2023	360.0000	360000.0000
28/10/2023	482.0000	482000.0000
29/10/2023	425.0000	425000.0000
30/10/2023	412.0000	412000.0000
31/10/2023	390.0000	390000.0000
01/11/2023	442.0000	442000.0000
02/11/2023	369.0000	369000.0000
03/11/2023	355.0000	355000.0000
04/11/2023	473.0000	473000.0000
05/11/2023	426.0000	426000.0000
06/11/2023	427.0000	427000.0000
07/11/2023	357.0000	357000.0000
08/11/2023	476.0000	476000.0000
09/11/2023	345.0000	345000.0000
10/11/2023	384.0000	384000.0000
11/11/2023	403.0000	403000.0000
12/11/2023	408.0000	408000.0000
13/11/2023	407.0000	407000.0000
14/11/2023	401.0000	401000.0000
15/11/2023	397.0000	397000.0000
16/11/2023	391.0000	391000.0000
17/11/2023	433.0000	433000.0000
18/11/2023	365.0000	365000.0000
19/11/2023	411.0000	411000.0000
20/11/2023	415.0000	415000.0000
21/11/2023	389.0000	389000.0000
22/11/2023	368.0000	368000.0000
23/11/2023	377.0000	377000.0000
24/11/2023	356.0000	356000.0000
25/11/2023	484.0000	484000.0000
26/11/2023	390.0000	390000.0000
27/11/2023	377.0000	377000.0000
28/11/2023	363.0000	363000.0000
29/11/2023	413.0000	413000.0000
30/11/2023	368.0000	368000.0000
01/12/2023	390.0000	390000.0000
02/12/2023	358.0000	358000.0000
03/12/2023	373.0000	373000.0000
04/12/2023	331.0000	331000.0000
05/12/2023	370.0000	370000.0000
06/12/2023	354.0000	354000.0000
07/12/2023	370.0000	370000.0000
08/12/2023	362.0000	362000.0000
09/12/2023	399.0000	399000.0000
10/12/2023	394.0000	394000.0000
11/12/2023	409.0000	409000.0000
12/12/2023	295.0000	295000.0000
13/12/2023	380.0000	380000.0000

14/12/2023	380.0000	380000.0000
15/12/2023	336.0000	336000.0000
16/12/2023	346.0000	346000.0000
17/12/2023	353.0000	353000.0000
18/12/2023	354.0000	354000.0000
19/12/2023	374.0000	374000.0000
20/12/2023	385.0000	385000.0000
21/12/2023	424.0000	424000.0000
22/12/2023	378.0000	378000.0000
23/12/2023	348.0000	348000.0000
24/12/2023	342.0000	342000.0000
25/12/2023	348.0000	348000.0000
26/12/2023	371.0000	371000.0000
27/12/2023	328.0000	328000.0000
28/12/2023	438.0000	438000.0000
29/12/2023	382.0000	382000.0000
30/12/2023	375.0000	375000.0000
31/12/2023	335.0000	335000.0000