

Mississippi Mills Drinking Water System

Waterworks # 220001290
System Category – Large Municipal Residential

Annual Water Report

Prepared For: Municipality of Mississippi Mills

Reporting Period of January 1st – December 31st 2022

Issued: February 28th, 2023

Revision: 0

Operating Authority:



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 residence and the annual reports will be available to users at the Municipality of Mississippi Mills Office. Notification will be at the Municipal Office and copies provided free of charge if requested. The Municipality of Mississippi Mills is located at 3131 Old Perth Rd., Almonte, Ontario, K0A 1A0. View the Municipalities website at www.mississippimills.ca

There are no additional drinking water systems that receive drinking water from this system.

Compliance Report Card

Compliance Event	# of Events
Ministry of Environment Inspections	OCWA/Mississippi Mills Distribution – August 28 th 2022 100%
Municipal Drinking Water Licence Drinking Water Works Permit	Expiry Date 2026-11-25
Ministry of Labour Inspections	No Inspections for the reporting period
QEMS External Audit	<u>OCWA</u> : One (1) External On-Site Audit <u>Municipality of Mississippi Mills</u> : One (1) External On-Site Audit
AWQI's/BWA	No AWQI's for the reporting period
Non-Compliance	One (1) Non-Compliance for the reporting period
Spills	There were no Spills during the reporting period.

System Process Description

The Mississippi Mills Drinking Water System consists of 5 drilled wells located throughout the Ward of Almonte. The system supplies water to only the Ward of Almonte and is owned by The Corporation of the Municipality of Mississippi Mills. The Ontario Clean Water Agency is the Operating Authority.

Well 3 is located in the eastern portion of the Town, approximately 60 m north of Ottawa Street and Harold Street. Well 3 is contained in its own brick construction pump house and is equipped with a submersible turbine pump rated at a capacity of 9.6 L/s at 70.7m TDH. Disinfection is achieved through injection of sodium hypochlorite into the feeder main prior to the treated water being discharged into a chlorine contact tank.

Well 5 is located along Almonte Street (County Road 16) near the south west end of Town. Well 5 is contained in its own brick construction pump house and is equipped with a submersible vertical pump rated at a capacity of 7.7 L/s at 120.18m TDH. A VFD was also installed to assist in flow control, reduce water pressure and electrical demand. Disinfection is achieved through injection of sodium hypochlorite

into the feeder main prior to the treated water being discharged into a chlorine contact tank. Well 6 is located in Gemmill’s Park in the south end of Town, immediately east of Highway 29. Well 6 is contained in its own brick construction pump house and is equipped with a turbine pump rated at a capacity of 22.7 L/s at 101.2m TDH. A VFD assists with flow control, water pressure and electrical demand. Disinfection is achieved through injection of sodium hypochlorite into the feeder main prior to the treated water being discharged into a chlorine contact tank.

Wells 7 and 8 are located within a single pump house near the northeast edge of Town, along the north side of Paterson Street. Well 7 and 8 are enclosed within a single brick and aluminum clad vented watertight pump house. Each well is equipped with a vertical turbine pump rated at a capacity of 44.8 L/s at 69.0m TDH. Both pumps have a VFD installed to assist in flow control, water pressure and electrical demand. The pumps are located directly on top of the well casings. Disinfection is achieved through injection of liquid sodium hypochlorite into the feeder main of each well, prior to the treated water being discharged into a single chlorine contact chamber.

Treatment Chemicals used during the reporting year:

Chemical Name	Use	Supplier
12 % Sodium Hypochlorite	Disinfection	Brenntag

Summary of Non-Compliance

Adverse Water Quality Incidents

Date	AWQI #	Location	Problem	Details	Legislation	Corrective Action Taken
No AWQI’s during the reporting period						

Non-Compliance

Legislation	requirement(s) system failed to meet	duration of the failure (i.e. date(s))	Corrective Action	Status
O. REG 170/03	Treated Water HPC sample	Week of December 19-23 2022	Notificaiton to MECP and Incident review	Closed

Non-Compliance Identified in a Ministry Inspection:

Legislation	requirement(s) system failed to meet	duration of the failure (i.e. date(s))	Corrective Action	Status
There were no findings identified				

Flows

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

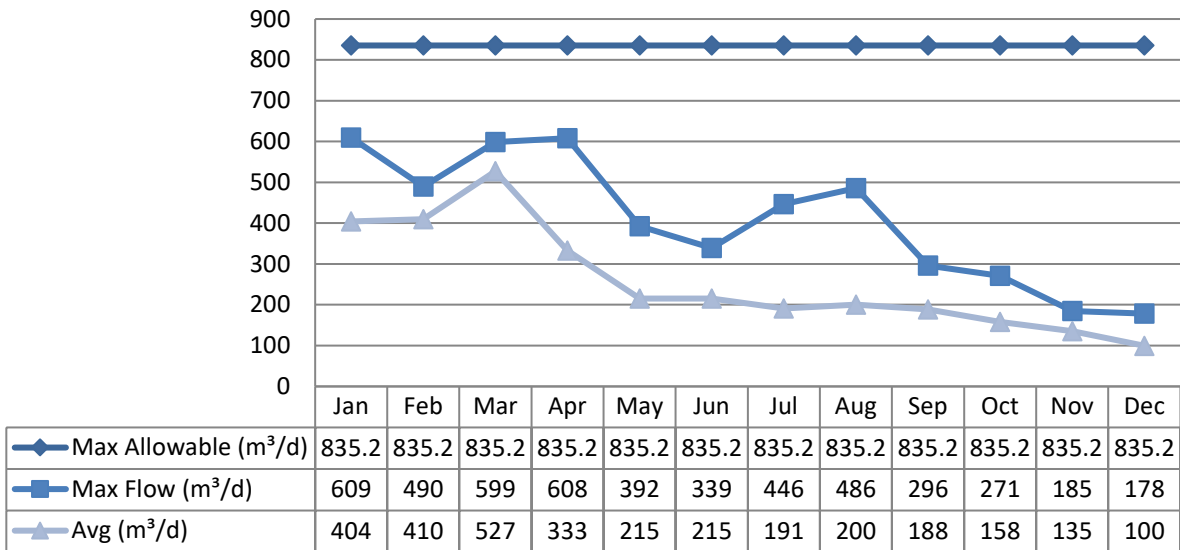
Raw Water Flows

The Raw Water flows are regulated under the Permit to Take Water. 2022 Raw Flow Data was submitted to the Ministry electronically under permit #0568-9LUL2N. The confirmation is attached in Appendix A.

Well 3

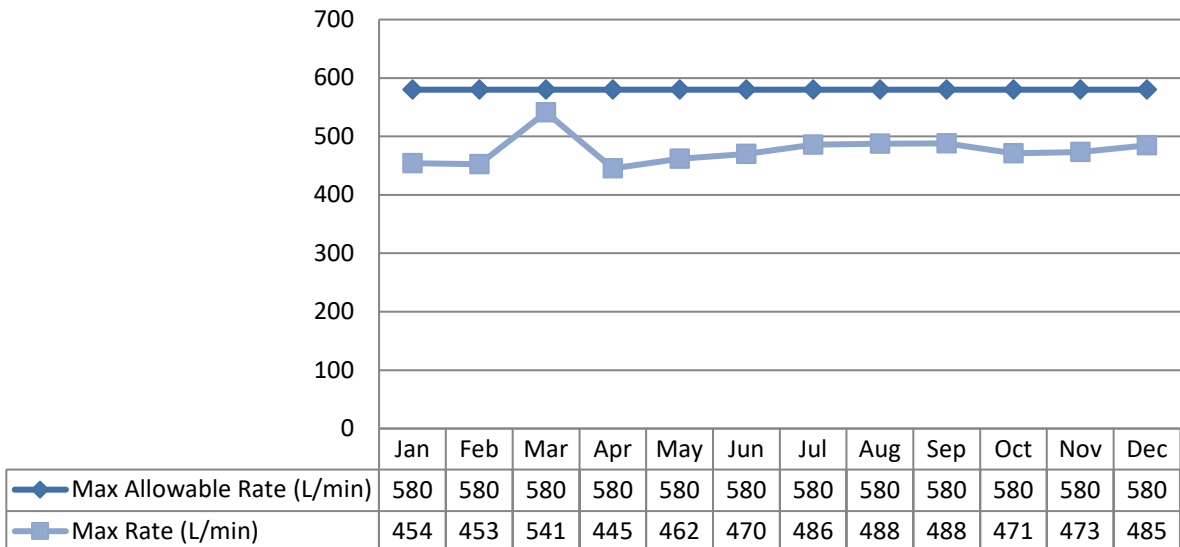
Total Monthly Flows (m³/d)

Max Allowable PTTW



Monthly Rated Flows (L/min)

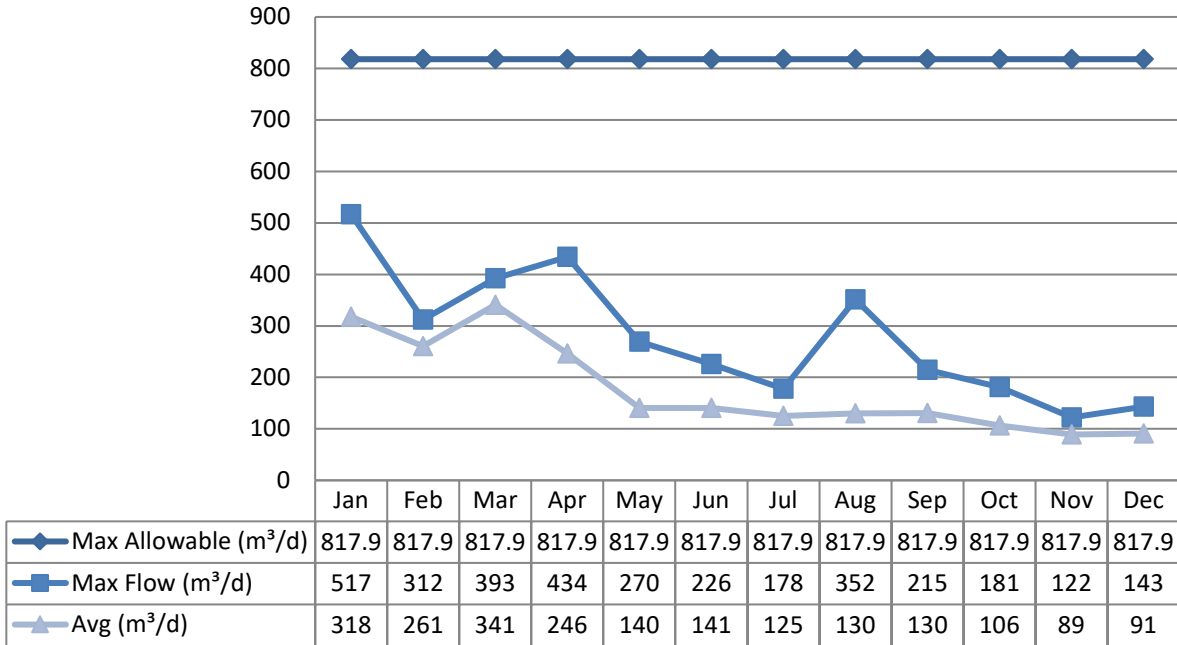
Max allowable rate - PTTW



Well 5

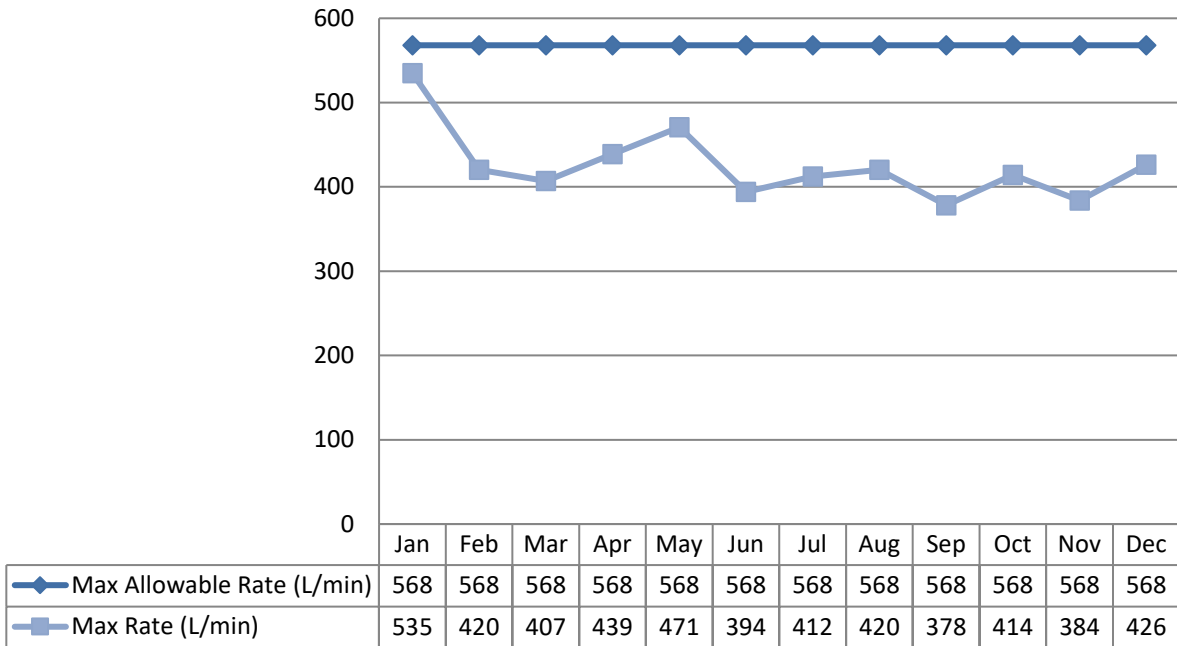
Total Monthly Flows (m³/d)

Max Allowable PTTW



Monthly Rated Flows (L/min)

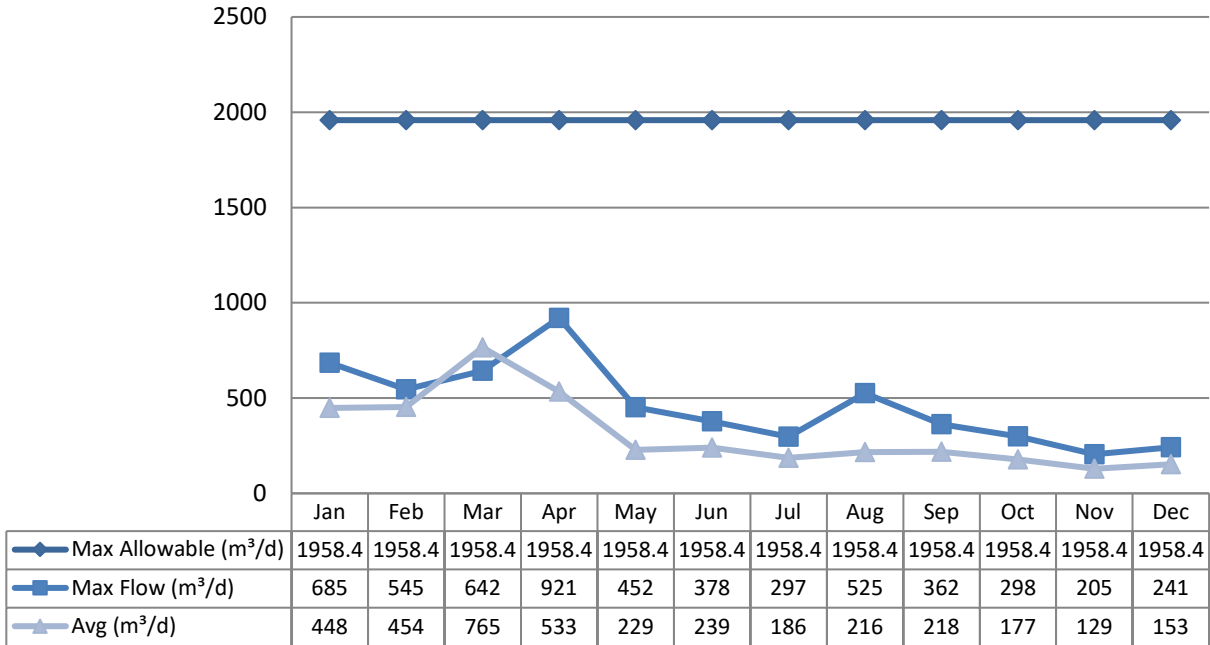
Max allowable rate – PTTW



Well 6

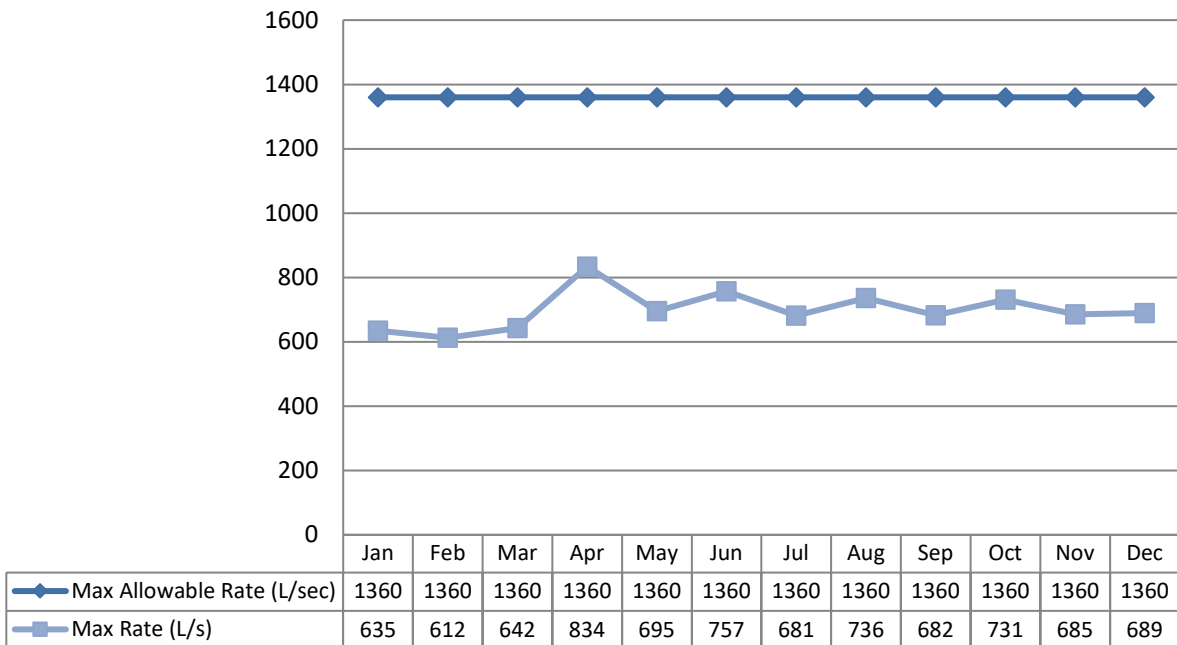
Total Monthly Flows (m³/d)

Max Allowable PTTW



Monthly Rated Flows (L/s)

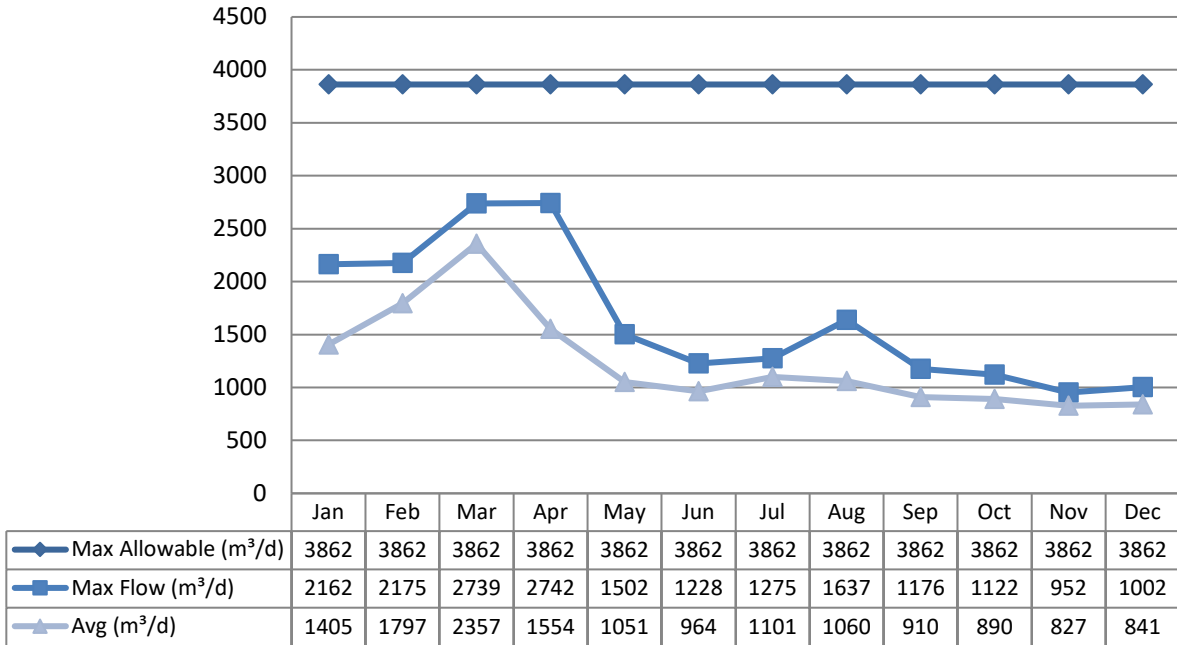
Max allowable rate – PTTW



Well 7

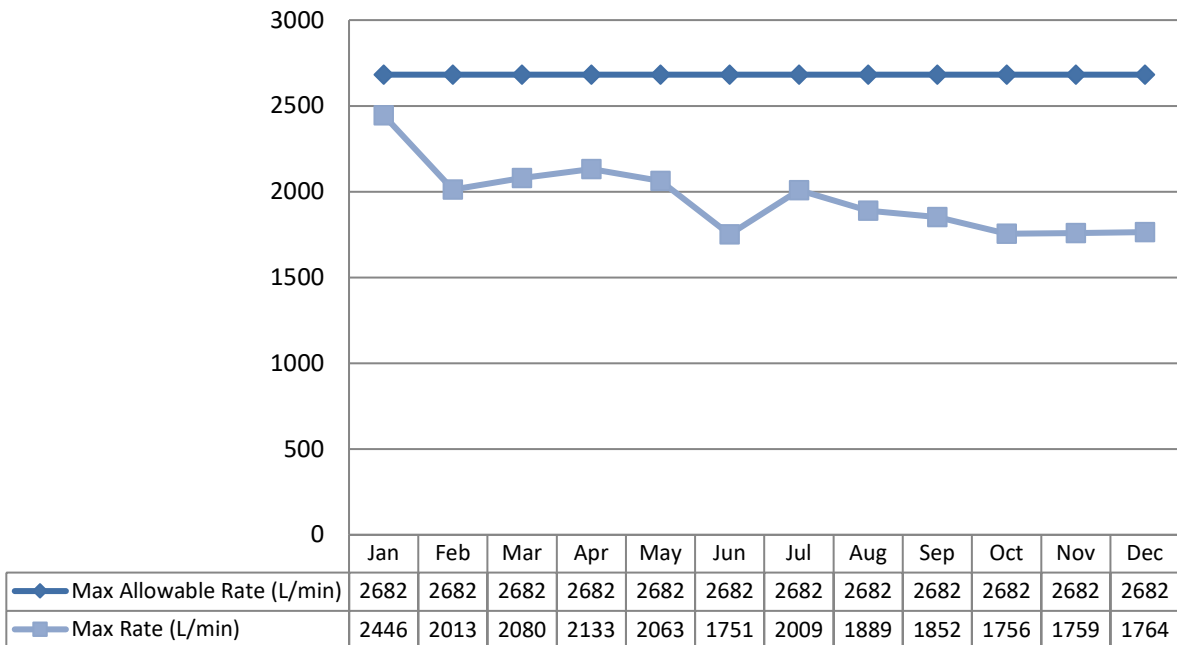
Total Monthly Flows (m³/d)

Max Allowable PTTW



Monthly Rated Flows (L/min)

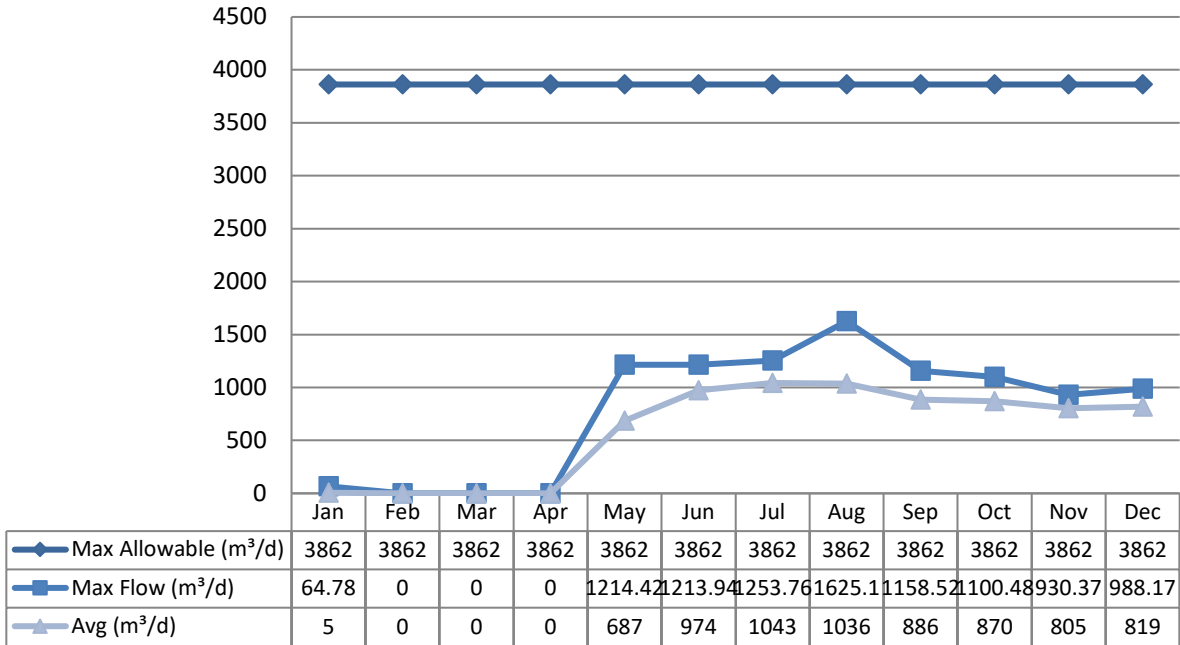
Max allowable rate - PTTW



Well 8

Total Monthly Flows (m³/d)

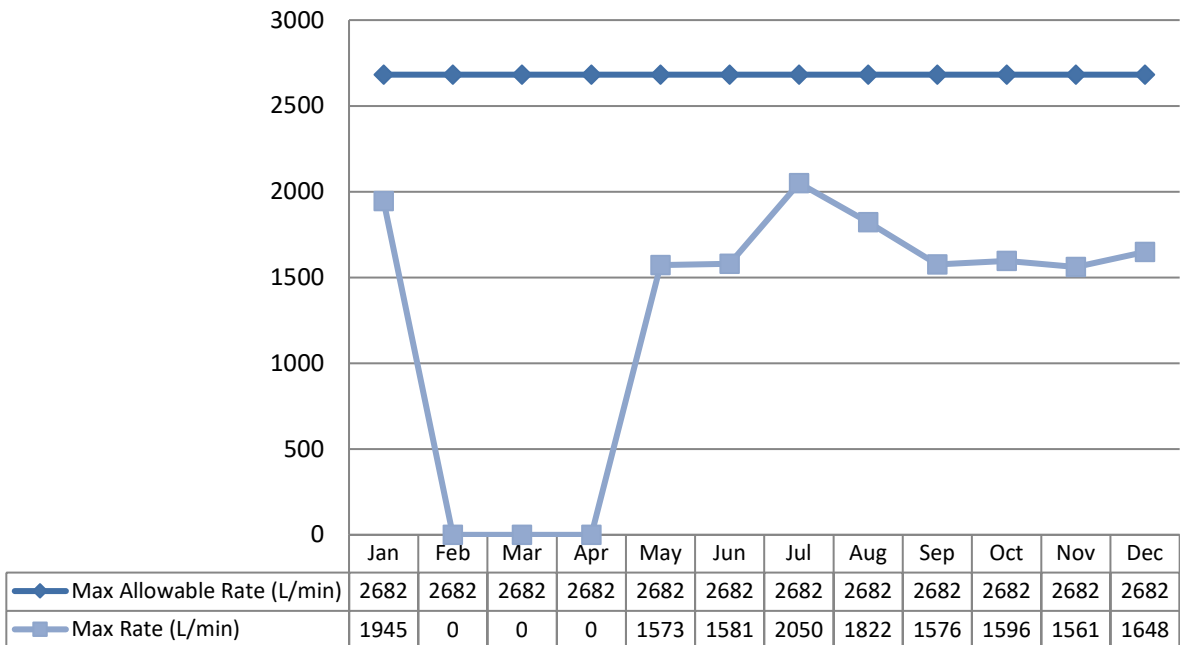
Max Allowable PTTW



NOTE: Well 8 was out of service to replace pump and refurbish associated equipment.

Monthly Rated Flows (L/min)

Max allowable rate - PTTW

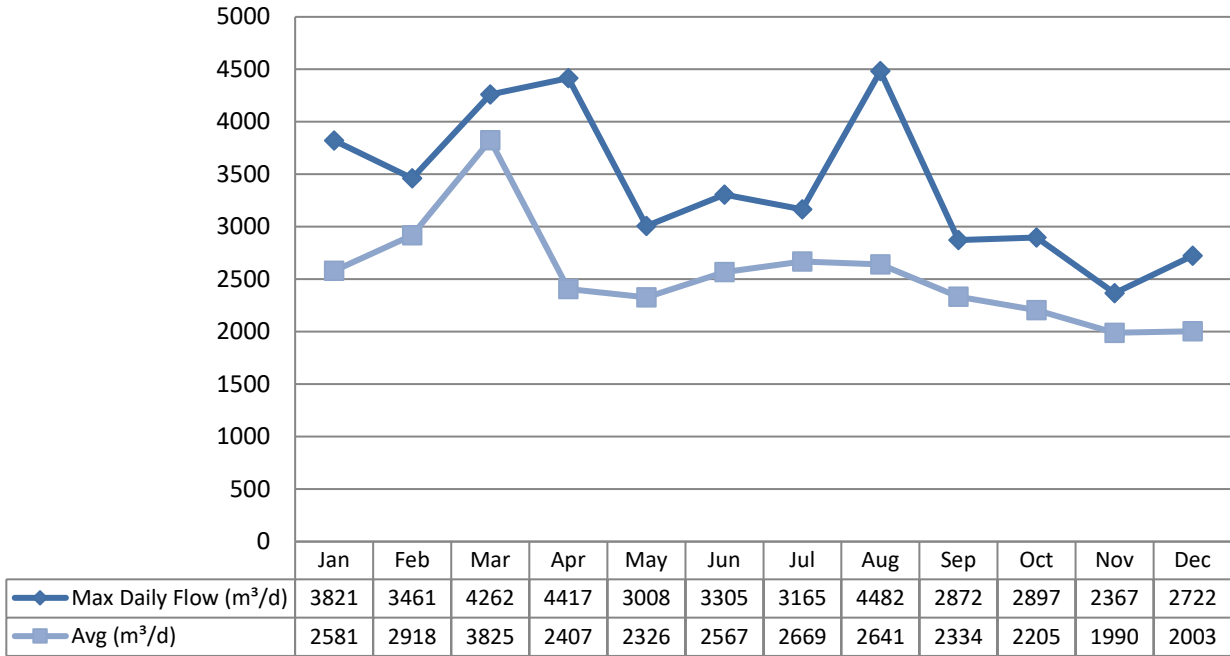


System Water Flows

The System Water flows are regulated under the Municipal Drinking Water Licence.

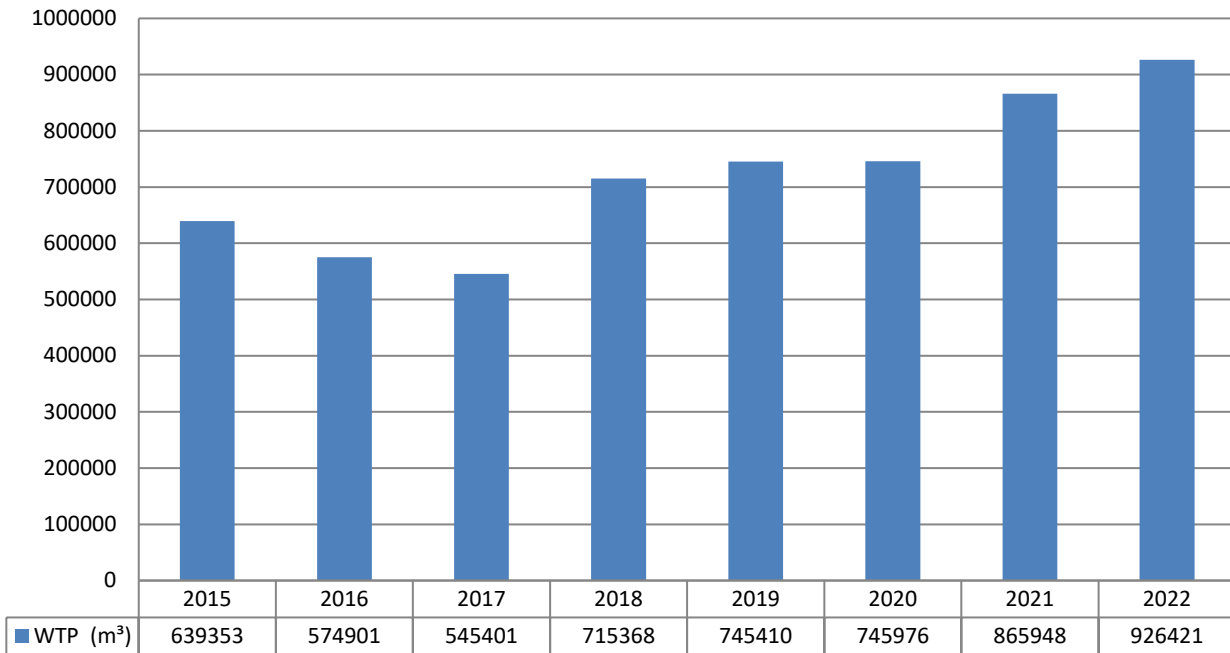
Monthly Flows

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 Total Coliform Results		No. of HPC Samples Collected	Range of HPC Results	
		Min	Max	Min	Max		Min	Max
MMills DWS RW Well 3	52	0	2	0	2			
MMills DWS RW Well 5	52	0	2	0	2			
MMills DWS RW Well 6	51	0	0	0	2			
MMills DWS RW Well 7	52	0	0	0	2			
MMills DWS RW Well 8	38	0	0	0	0			
MMills DWS TW Well 3	52	0	0	0	0	51	2	4
MMills DWS TW Well 5	52	0	0	0	0	51	2	2
MMills DWS TW Well 6	50	0	0	0	0	49	2	2
MMills DWS TW Well 7	16	0	0	0	0	16	2	2
MMills DWS TW Wells 7&8 combined	36	0	0	0	0	35	2	2
Distribution	208	0	0	0	0	204	2	46

* Number of Samples collected varies due to the individual well being Out of Service for Maintenance

Operational Testing

	No. of Samples Collected	Range of Results	
		Minimum	Maximum
Turbidity, On-Line (NTU) - RW6	8760	0	2.17
Turbidity, On-Line (NTU) - RW7	8760	0	2.0
Turbidity, On-Line (NTU) - RW8	8760	0	2.0
Free Chlorine Residual, On-Line (mg/L) - TW3	8760	0.4	1.87
Free Chlorine Residual, In-House (mg/L) – TW3	136	0.83	1.43
Free Chlorine Residual, On-Line (mg/L) - TW5	8760	0.53	2.0
Free Chlorine Residual, In-House (mg/L) – TW5	125	0.72	1.76
Free Chlorine Residual, On-Line (mg/L) - TW6	8760	0.56	2.17
Free Chlorine Residual, In-House (mg/L) – TW6	129	0.62	1.57
Free Chlorine Residual, On-Line (mg/L) - TW7/8	8760	0.23	1.58
Free Chlorine Residual, In-House (mg/L) – TW7/8	102	0.91	1.52
Free Chlorine Residual, On-Line (mg/L) - DW	8760	0.21	1.38
Free Chlorine Residual, DW Field (mg/L) Lab Upload - DW	209	0.71	1.53

NOTE: 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 36

months 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
- BDL = Below the laboratory detection level

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	No. of Exceedances	
				MAC	1/2 MAC
Treated Water					
Antimony: Sb (ug/L) - TW3	2022/10/13	<MDL 0.1	6.0	No	No
Antimony: Sb (ug/L) - TW5	2022/10/13	<MDL 0.1	6.0	No	No
Antimony: Sb (ug/L) - TW6	2022/10/13	<MDL 0.1	6.0	No	No
Antimony: Sb (ug/L) - TW7/8	2022/10/13	<MDL 0.1	6.0	No	No
Arsenic: As (ug/L) - TW3	2022/10/13	<MDL 0.1	10.0	No	No
Arsenic: As (ug/L) - TW5	2022/10/13	<MDL 0.1	10.0	No	No
Arsenic: As (ug/L) - TW6	2022/10/13	0.1	10.0	No	No
Arsenic: As (ug/L) - TW7/8	2022/10/13	<MDL 0.1	10.0	No	No
Barium: Ba (ug/L) - TW3	2022/10/13	117.0	1000.0	No	No
Barium: Ba (ug/L) - TW5	2022/10/13	157.0	1000.0	No	No
Barium: Ba (ug/L) - TW6	2022/10/13	86.0	1000.0	No	No
Barium: Ba (ug/L) - TW7/8	2022/10/13	156.0	1000.0	No	No
Boron: B (ug/L) - TW3	2022/10/13	254.0	5000.0	No	No
Boron: B (ug/L) - TW5	2022/10/13	47.0	5000.0	No	No
Boron: B (ug/L) - TW6	2022/10/13	227.0	5000.0	No	No
Boron: B (ug/L) - TW7/8	2022/10/13	163.0	5000.0	No	No
Cadmium: Cd (ug/L) - TW3	2022/10/13	0.04	5.0	No	No
Cadmium: Cd (ug/L) - TW5	2022/10/13	<MDL 0.01	5.0	No	No
Cadmium: Cd (ug/L) - TW6	2022/10/13	<MDL 0.01	5.0	No	No
Cadmium: Cd (ug/L) - TW7/8	2022/10/13	<MDL 0.01	5.0	No	No
Chromium: Cr (ug/L) - TW3	2022/10/13	<MDL 2.0	50.0	No	No
Chromium: Cr (ug/L) - TW5	2022/10/13	<MDL 2.0	50.0	No	No
Chromium: Cr (ug/L) - TW6	2022/10/13	<MDL 2.0	50.0	No	No
Chromium: Cr (ug/L) - TW7/8	2022/10/13	<MDL 2.0	50.0	No	No
Mercury: Hg (ug/L) - TW3	2022/10/13	<MDL 0.02	1.0	No	No
Mercury: Hg (ug/L) - TW5	2022/10/13	<MDL 0.02	1.0	No	No
Mercury: Hg (ug/L) - TW6	2022/10/13	<MDL 0.02	1.0	No	No
Mercury: Hg (ug/L) - TW7/8	2022/10/13	<MDL 0.02	1.0	No	No
Selenium: Se (ug/L) - TW3	2022/10/13	<MDL 1.0	50.0	No	No
Selenium: Se (ug/L) - TW5	2022/10/13	<MDL 1.0	50.0	No	No
Selenium: Se (ug/L) - TW6	2022/10/13	<MDL 1.0	50.0	No	No
Selenium: Se (ug/L) - TW7/8	2022/10/13	1.0	50.0	No	No
Uranium: U (ug/L) - TW3	2022/10/13	0.54	20.0	No	No
Uranium: U (ug/L) - TW5	2022/10/13	0.79	20.0	No	No
Uranium: U (ug/L) - TW6	2022/10/13	0.85	20.0	No	No
Uranium: U (ug/L) - TW7/8	2022/10/13	1.27	20.0	No	No
Additional Inorganics					

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	No. of Exceedances	
				MAC	1/2 MAC
Fluoride (mg/L) - TW3	2022/02/07	0.1	1.5	No	No
Fluoride (mg/L) - TW5	2022/02/07	<MDL 0.1	1.5	No	No
Fluoride (mg/L) - TW6	2022/02/07	0.2	1.5	No	No
Fluoride (mg/L) - TW7/8	2022/02/07	0.2	1.5	No	No
Nitrite (mg/L) - TW3	2022/02/07	<MDL 0.1	1.0	No	No
Nitrite (mg/L) - TW3	2022/05/10	<MDL 0.1	1.0	No	No
Nitrite (mg/L) - TW3	N/A	N/A	1.0	No	No
Nitrite (mg/L) - TW3	2022/11/08	<MDL 0.1	1.0	No	No
Nitrite (mg/L) - TW5	2022/02/07	<MDL 0.1	1.0	No	No
Nitrite (mg/L) - TW5	2022/05/10	<MDL 0.1	1.0	No	No
Nitrite (mg/L) - TW5	2022/08/08	<MDL 0.1	1.0	No	No
Nitrite (mg/L) - TW5	2022/11/08	<MDL 0.1	1.0	No	No
Nitrite (mg/L) - TW6	2022/02/07	<MDL 0.1	1.0	No	No
Nitrite (mg/L) - TW6	2022/05/10	<MDL 0.1	1.0	No	No
Nitrite (mg/L) - TW6	2022/08/08	<MDL 0.1	1.0	No	No
Nitrite (mg/L) - TW6	2022/11/08	<MDL 0.1	1.0	No	No
Nitrite (mg/L) - TW7/8	N/A	N/A	1.0	No	No
Nitrite (mg/L) - TW7/8	2022/05/10	<MDL 0.1	1.0	No	No
Nitrite (mg/L) - TW7/8	2022/08/08	<MDL 0.1	1.0	No	No
Nitrite (mg/L) - TW7/8	2022/11/08	<MDL 0.1	1.0	No	No
Nitrate (mg/L) - TW3	2022/02/07	0.2	10.0	No	No
Nitrate (mg/L) - TW3	2022/05/10	0.2	10.0	No	No
Nitrate (mg/L) - TW3	N/A	N/A	10.0	No	No
Nitrate (mg/L) - TW3	2022/11/08	0.2	10.0	No	No
Nitrate (mg/L) - TW5	2022/02/07	0.4	10.0	No	No
Nitrate (mg/L) - TW5	2022/05/10	0.4	10.0	No	No
Nitrate (mg/L) - TW5	2022/08/08	0.2	10.0	No	No
Nitrate (mg/L) - TW5	2022/11/08	0.3	10.0	No	No
Nitrate (mg/L) - TW6	2022/02/07	0.7	10.0	No	No
Nitrate (mg/L) - TW6	2022/05/10	0.4	10.0	No	No
Nitrate (mg/L) - TW6	2022/08/08	0.4	10.0	No	No
Nitrate (mg/L) - TW6	2022/11/08	0.5	10.0	No	No
Nitrate (mg/L) - TW7/8	N/A	N/A	10.0	No	No
Nitrate (mg/L) - TW7/8	2022/05/10	1.6	10.0	No	No
Nitrate (mg/L) - TW7/8	2022/08/08	1.2	10.0	No	No
Nitrate (mg/L) - TW7/8	2022/11/08	1.0	10.0	No	No
Sodium: Na (mg/L) - TW3	2019/07/03	41.4	20*	Yes	Yes
Sodium: Na (mg/L) - TW5	2019/07/03	60.9	20*	Yes	Yes
Sodium: Na (mg/L) - TW6	2019/07/03	44.6	20*	Yes	Yes
Sodium: Na (mg/L) - TW7/8	2019/07/03	43.5	20*	Yes	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.

** Sodium was reported as an AWQI in 2018. No regulatory reporting requirements in 2019.

Schedule 15 Sampling:

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

Distribution System	Number of Sampling Points	Number of Samples	Range of Results		MAC (ug/L)	Number of Exceedances
			Minimum	Maximum		
Alkalinity (mg/L)	6	6	281	301	N/A	N/A
pH	6	6	7.05	7.85	N/A	N/A
Lead (ug/l)	6	6	0.17	1.30	10	0

Organic Parameters

These parameters are tested every 36 months 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.

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
Treated Water					
Alachlor (ug/L) - TW3	2022/10/13	<MDL 0.3	5.00	No	No
Alachlor (ug/L) - TW5	2022/10/13	<MDL 0.3	5.00	No	No
Alachlor (ug/L) - TW7/8	2022/10/13	<MDL 0.3	5.00	No	No
Alachlor (ug/L) - TW6	2022/10/13	<MDL 0.3	5.00	No	No
Azinphos-methyl (ug/L) - TW3	2022/10/13	<MDL 1.0	20.00	No	No
Azinphos-methyl (ug/L) - TW5	2022/10/13	<MDL 1.0	20.00	No	No
Azinphos-methyl (ug/L) - TW7/8	2022/10/13	<MDL 1.0	20.00	No	No
Azinphos-methyl (ug/L) - TW6	2022/10/13	<MDL 1.0	20.00	No	No
Benzene (ug/L) - TW3	2022/10/13	<MDL 0.5	1.00	No	No
Benzene (ug/L) - TW5	2022/10/13	<MDL 0.5	1.00	No	No
Benzene (ug/L) - TW7/8	2022/10/13	<MDL 0.5	1.00	No	No
Benzene (ug/L) - TW6	2022/10/13	<MDL 0.5	1.00	No	No
Benzo(a)pyrene (ug/L) - TW3	2022/10/13	<MDL 0.006	0.01	No	No
Benzo(a)pyrene (ug/L) - TW5	2022/10/13	<MDL 0.006	0.01	No	No
Benzo(a)pyrene (ug/L) - TW7/8	2022/10/13	<MDL 0.006	0.01	No	No
Benzo(a)pyrene (ug/L) - TW6	2022/10/13	<MDL 0.006	0.01	No	No
Bromoxynil (ug/L) - TW3	2022/10/13	<MDL 0.5	5.00	No	No
Bromoxynil (ug/L) - TW5	2022/10/13	<MDL 0.5	5.00	No	No
Bromoxynil (ug/L) - TW7/8	2022/10/13	<MDL 0.5	5.00	No	No
Bromoxynil (ug/L) - TW6	2022/10/13	<MDL 0.5	5.00	No	No
Carbaryl (ug/L) - TW3	2022/10/13	<MDL 3.0	90.00	No	No
Carbaryl (ug/L) - TW5	2022/10/13	<MDL 3.0	90.00	No	No

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
Carbaryl (ug/L) - TW7/8	2022/10/13	<MDL 3.0	90.00	No	No
Carbaryl (ug/L) - TW6	2022/10/13	<MDL 3.0	90.00	No	No
Carbofuran (ug/L) - TW3	2022/10/13	<MDL 1.0	90.00	No	No
Carbofuran (ug/L) - TW5	2022/10/13	<MDL 1.0	90.00	No	No
Carbofuran (ug/L) - TW7/8	2022/10/13	<MDL 1.0	90.00	No	No
Carbofuran (ug/L) - TW6	2022/10/13	<MDL 1.0	90.00	No	No
Carbon Tetrachloride (ug/L) - TW3	2022/10/13	<MDL 0.2	2.00	No	No
Carbon Tetrachloride (ug/L) - TW5	2022/10/13	<MDL 0.2	2.00	No	No
Carbon Tetrachloride (ug/L) - TW7/8	2022/10/13	<MDL 0.2	2.00	No	No
Carbon Tetrachloride (ug/L) - TW6	2022/10/13	<MDL 0.2	2.00	No	No
Chlorpyrifos (ug/L) - TW3	2022/10/13	<MDL 0.5	90.00	No	No
Chlorpyrifos (ug/L) - TW5	2022/10/13	<MDL 0.5	90.00	No	No
Chlorpyrifos (ug/L) - TW7/8	2022/10/13	<MDL 0.5	90.00	No	No
Chlorpyrifos (ug/L) - TW6	2022/10/13	<MDL 0.5	90.00	No	No
Diazinon (ug/L) - TW3	2022/10/13	<MDL 1.0	20.00	No	No
Diazinon (ug/L) - TW5	2022/10/13	<MDL 1.0	20.00	No	No
Diazinon (ug/L) - TW7/8	2022/10/13	<MDL 1.0	20.00	No	No
Diazinon (ug/L) - TW6	2022/10/13	<MDL 1.0	20.00	No	No
Dicamba (ug/L) - TW3	2022/10/13	<MDL 10.0	120.00	No	No
Dicamba (ug/L) - TW5	2022/10/13	<MDL 10.0	120.00	No	No
Dicamba (ug/L) - TW7/8	2022/10/13	<MDL 10.0	120.00	No	No
Dicamba (ug/L) - TW6	2022/10/13	<MDL 10.0	120.00	No	No
1,2-Dichlorobenzene (ug/L) - TW3	2022/10/13	<MDL 0.5	200.00	No	No
1,2-Dichlorobenzene (ug/L) - TW5	2022/10/13	<MDL 0.5	200.00	No	No
1,2-Dichlorobenzene (ug/L) - TW7/8	2022/10/13	<MDL 0.5	200.00	No	No
1,2-Dichlorobenzene (ug/L) - TW6	2022/10/13	<MDL 0.5	200.00	No	No
1,4-Dichlorobenzene (ug/L) - TW3	2022/10/13	<MDL 0.5	5.00	No	No
1,4-Dichlorobenzene (ug/L) - TW5	2022/10/13	<MDL 0.5	5.00	No	No
1,4-Dichlorobenzene (ug/L) - TW7/8	2022/10/13	<MDL 0.5	5.00	No	No
1,4-Dichlorobenzene (ug/L) - TW6	2022/10/13	<MDL 0.5	5.00	No	No
1,2-Dichloroethane (ug/L) - TW3	2022/10/13	<MDL 0.5	5.00	No	No
1,2-Dichloroethane (ug/L) - TW5	2022/10/13	<MDL 0.5	5.00	No	No
1,2-Dichloroethane (ug/L) - TW7/8	2022/10/13	<MDL 0.5	5.00	No	No
1,2-Dichloroethane (ug/L) - TW6	2022/10/13	<MDL 0.5	5.00	No	No
1,1-Dichloroethylene (ug/L) - TW3	2022/10/13	<MDL 0.5	14.00	No	No
1,1-Dichloroethylene (ug/L) - TW5	2022/10/13	<MDL 0.5	14.00	No	No
1,1-Dichloroethylene (ug/L) - TW7/8	2022/10/13	<MDL 0.5	14.00	No	No
1,1-Dichloroethylene (ug/L) - TW6	2022/10/13	<MDL 0.5	14.00	No	No
Dichloromethane (Methylene Chloride) (ug/L) - TW3	2022/10/13	<MDL 5.0	50.00	No	No

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
Dichloromethane (Methylene Chloride) (ug/L) - TW5	2022/10/13	<MDL 5.0	50.00	No	No
Dichloromethane (Methylene Chloride) (ug/L) - TW7/8	2022/10/13	<MDL 5.0	50.00	No	No
Dichloromethane (Methylene Chloride) (ug/L) - TW6	2022/10/13	<MDL 5.0	50.00	No	No
2,4-Dichlorophenol (ug/L) - TW3	2022/10/13	<MDL 0.2	900.00	No	No
2,4-Dichlorophenol (ug/L) - TW5	2022/10/13	<MDL 0.2	900.00	No	No
2,4-Dichlorophenol (ug/L) - TW7/8	2022/10/13	<MDL 0.2	900.00	No	No
2,4-Dichlorophenol (ug/L) - TW6	2022/10/13	<MDL 0.2	900.00	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L) - TW3	2022/10/13	<MDL 1.0	100.00	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L) - TW5	2022/10/13	<MDL 1.0	100.00	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L) - TW7/8	2022/10/13	<MDL 1.0	100.00	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L) - TW6	2022/10/13	<MDL 1.0	100.00	No	No
Diclofop-methyl (ug/L) - TW3	2022/10/13	<MDL 0.9	9.00	No	No
Diclofop-methyl (ug/L) - TW5	2022/10/13	<MDL 0.9	9.00	No	No
Diclofop-methyl (ug/L) - TW7/8	2022/10/13	<MDL 0.9	9.00	No	No
Diclofop-methyl (ug/L) - TW6	2022/10/13	<MDL 0.9	9.00	No	No
Dimethoate (ug/L) - TW3	2022/10/13	<MDL 1.0	20.00	No	No
Dimethoate (ug/L) - TW5	2022/10/13	<MDL 1.0	20.00	No	No
Dimethoate (ug/L) - TW7/8	2022/10/13	<MDL 1.0	20.00	No	No
Dimethoate (ug/L) - TW6	2022/10/13	<MDL 1.0	20.00	No	No
Diquat (ug/L) - TW3	2022/10/13	<MDL 5.0	70.00	No	No
Diquat (ug/L) - TW5	2022/10/13	<MDL 5.0	70.00	No	No
Diquat (ug/L) - TW7/8	2022/10/13	<MDL 5.0	70.00	No	No
Diquat (ug/L) - TW6	2022/10/13	<MDL 5.0	70.00	No	No
Diuron (ug/L) - TW3	2022/10/13	<MDL 5.0	150.00	No	No
Diuron (ug/L) - TW5	2022/10/13	<MDL 5.0	150.00	No	No
Diuron (ug/L) - TW7/8	2022/10/13	<MDL 5.0	150.00	No	No
Diuron (ug/L) - TW6	2022/10/13	<MDL 5.0	150.00	No	No
Glyphosate (ug/L) - TW3	2022/10/13	<MDL 25.0	280.00	No	No
Glyphosate (ug/L) - TW5	2022/10/13	<MDL 25.0	280.00	No	No
Glyphosate (ug/L) - TW7/8	2022/10/13	<MDL 25.0	280.00	No	No
Glyphosate (ug/L) - TW6	2022/10/13	<MDL 25.0	280.00	No	No
Malathion (ug/L) - TW3	2022/10/13	<MDL 5.0	190.00	No	No
Malathion (ug/L) - TW5	2022/10/13	<MDL 5.0	190.00	No	No
Malathion (ug/L) - TW7/8	2022/10/13	<MDL 5.0	190.00	No	No

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
Malathion (ug/L) - TW6	2022/10/13	<MDL 5.0	190.00	No	No
Metolachlor (ug/L) - TW3	2022/10/13	<MDL 3.0	50.00	No	No
Metolachlor (ug/L) - TW5	2022/10/13	<MDL 3.0	50.00	No	No
Metolachlor (ug/L) - TW7/8	2022/10/13	<MDL 3.0	50.00	No	No
Metolachlor (ug/L) - TW6	2022/10/13	<MDL 3.0	50.00	No	No
Metribuzin (ug/L) - TW3	2022/10/13	<MDL 3.0	80.00	No	No
Metribuzin (ug/L) - TW5	2022/10/13	<MDL 3.0	80.00	No	No
Metribuzin (ug/L) - TW7/8	2022/10/13	<MDL 3.0	80.00	No	No
Metribuzin (ug/L) - TW6	2022/10/13	<MDL 3.0	80.00	No	No
Monochlorobenzene (Chlorobenzene) (ug/L) - TW3	2022/10/13	<MDL 0.5	80.00	No	No
Monochlorobenzene (Chlorobenzene) (ug/L) - TW5	2022/10/13	<MDL 0.5	80.00	No	No
Monochlorobenzene (Chlorobenzene) (ug/L) - TW7/8	2022/10/13	<MDL 0.5	80.00	No	No
Monochlorobenzene (Chlorobenzene) (ug/L) - TW6	2022/10/13	<MDL 0.5	80.00	No	No
Paraquat (ug/L) - TW3	2022/10/13	<MDL 1.0	10.00	No	No
Paraquat (ug/L) - TW5	2022/10/13	<MDL 1.0	10.00	No	No
Paraquat (ug/L) - TW7/8	2022/10/13	<MDL 1.0	10.00	No	No
Paraquat (ug/L) - TW6	2022/10/13	<MDL 1.0	10.00	No	No
PCB (ug/L) - TW3	2022/10/13	<MDL 0.05	3.00	No	No
PCB (ug/L) - TW5	2022/10/13	<MDL 0.05	3.00	No	No
PCB (ug/L) - TW7/8	2022/10/13	<MDL 0.05	3.00	No	No
PCB (ug/L) - TW6	2022/10/13	<MDL 0.05	3.00	No	No
Pentachlorophenol (ug/L) - TW3	2022/10/13	<MDL 0.2	60.00	No	No
Pentachlorophenol (ug/L) - TW5	2022/10/13	<MDL 0.2	60.00	No	No
Pentachlorophenol (ug/L) - TW7/8	2022/10/13	<MDL 0.2	60.00	No	No
Pentachlorophenol (ug/L) - TW6	2022/10/13	<MDL 0.2	60.00	No	No
Phorate (ug/L) - TW3	2022/10/13	<MDL 0.3	2.00	No	No
Phorate (ug/L) - TW5	2022/10/13	<MDL 0.3	2.00	No	No
Phorate (ug/L) - TW7/8	2022/10/13	<MDL 0.3	2	No	No
Phorate (ug/L) - TW6	2022/10/13	<MDL 0.3	2	No	No
Picloram (ug/L) - TW3	2022/10/13	<MDL 5.0	190	No	No
Picloram (ug/L) - TW5	2022/10/13	<MDL 5.0	190	No	No
Picloram (ug/L) - TW7/8	2022/10/13	<MDL 5.0	190	No	No
Picloram (ug/L) - TW6	2022/10/13	<MDL 5.0	190	No	No
Prometryne (ug/L) - TW3	2022/10/13	<MDL 0.1	1	No	No
Prometryne (ug/L) - TW5	2022/10/13	<MDL 0.1	1	No	No
Prometryne (ug/L) - TW7/8	2022/10/13	<MDL 0.1	1	No	No
Prometryne (ug/L) - TW6	2022/10/13	<MDL 0.1	1	No	No
Simazine (ug/L) - TW3	2022/10/13	<MDL 0.5	10	No	No
Simazine (ug/L) - TW5	2022/10/13	<MDL 0.5	10	No	No

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
Simazine (ug/L) - TW7/8	2022/10/13	<MDL 0.5	10	No	No
Simazine (ug/L) - TW6	2022/10/13	<MDL 0.5	10	No	No
Terbufos (ug/L) - TW3	2022/10/13	<MDL 0.5	1	No	No
Terbufos (ug/L) - TW5	2022/10/13	<MDL 0.5	1	No	No
Terbufos (ug/L) - TW7/8	2022/10/13	<MDL 0.5	1	No	No
Terbufos (ug/L) - TW6	2022/10/13	<MDL 0.5	1	No	No
Tetrachloroethylene (ug/L) - TW3	2022/10/13	<MDL 0.5	10	No	No
Tetrachloroethylene (ug/L) - TW5	2022/10/13	<MDL 0.5	10	No	No
Tetrachloroethylene (ug/L) - TW7/8	2022/10/13	<MDL 0.5	10	No	No
Tetrachloroethylene (ug/L) - TW6	2022/10/13	<MDL 0.5	10	No	No
2,3,4,6-Tetrachlorophenol (ug/L) - TW3	2022/10/13	<MDL 0.5	100	No	No
2,3,4,6-Tetrachlorophenol (ug/L) - TW5	2022/10/13	<MDL 0.5	100	No	No
2,3,4,6-Tetrachlorophenol (ug/L) - TW7/8	2022/10/13	<MDL 0.5	100	No	No
2,3,4,6-Tetrachlorophenol (ug/L) - TW6	2022/10/13	<MDL 0.5	100	No	No
Triallate (ug/L) - TW3	2022/10/13	<MDL 10.0	230	No	No
Triallate (ug/L) - TW5	2022/10/13	<MDL 10.0	230	No	No
Triallate (ug/L) - TW7/8	2022/10/13	<MDL 10.0	230	No	No
Triallate (ug/L) - TW6	2022/10/13	<MDL 10.0	230	No	No
Trichloroethylene (ug/L) - TW3	2022/10/13	<MDL 0.5	5	No	No
Trichloroethylene (ug/L) - TW5	2022/10/13	<MDL 0.5	5	No	No
Trichloroethylene (ug/L) - TW7/8	2022/10/13	<MDL 0.5	5	No	No
Trichloroethylene (ug/L) - TW6	2022/10/13	<MDL 0.5	5	No	No
2,4,6-Trichlorophenol (ug/L) - TW3	2022/10/13	<MDL 0.2	5	No	No
2,4,6-Trichlorophenol (ug/L) - TW5	2022/10/13	<MDL 0.2	5	No	No
2,4,6-Trichlorophenol (ug/L) - TW7/8	2022/10/13	<MDL 0.2	5	No	No
2,4,6-Trichlorophenol (ug/L) - TW6	2022/10/13	<MDL 0.2	5	No	No
2-methyl-4-chlorophenoxyacetic acid (MCPA) (ug/L) - TW3	2022/10/13	<MDL 10.0	100	No	No
2-methyl-4-chlorophenoxyacetic acid (MCPA) (ug/L) - TW5	2022/10/13	<MDL 10.0	100	No	No
2-methyl-4-chlorophenoxyacetic acid (MCPA) (ug/L) - TW7/8	2022/10/13	<MDL 10.0	100	No	No
2-methyl-4-chlorophenoxyacetic acid (MCPA) (ug/L) - TW6	2022/10/13	<MDL 10.0	100	No	No
Trifluralin (ug/L) - TW3	2022/10/13	<MDL 0.5	45	No	No
Trifluralin (ug/L) - TW5	2022/10/13	<MDL 0.5	45	No	No
Trifluralin (ug/L) - TW7/8	2022/10/13	<MDL 0.5	45	No	No
Trifluralin (ug/L) - TW6	2022/10/13	<MDL 0.5	45	No	No
Vinyl Chloride (ug/L) - TW3	2022/10/13	<MDL 0.2	1	No	No
Vinyl Chloride (ug/L) - TW5	2022/10/13	<MDL 0.2	1	No	No

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
Vinyl Chloride (ug/L) - TW7/8	2022/10/13	<MDL 0.2	1	No	No
Vinyl Chloride (ug/L) - TW6	2022/10/13	<MDL 0.2	1	No	No
Distribution Water					
Trihalomethane: Total (ug/L) Annual Running Average - DW	2022	16	100	No	No
HAA Total (ug/L) Annual Running Average - DW	2022	5.3	80.0	No	No

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

BDL = Below the laboratory detection level

Additional Legislated Samples

The following two tables are the sample results from additional samples collected at Well 5:

The first table contains the results of samples collected because the adjoining lands were once used for storage of electrical transformers and hydro poles. The transformers and hydro poles are no longer stored at the adjoining lands but sampling will continue. Please note that these samples are Raw Water and not Treated Water. There is no MAC / IMAC (Maximum Acceptable Concentration / Interim Maximum Acceptable Concentration) for raw water but the treated water MAC / IMAC have been provided for reference.

The second table contains the results of samples collected due to the wells' proximity to the decommissioned wastewater treatment lagoons. These results help to assess the integrity of the lagoon cells.

Raw Water: Well 5 Parameter	Unit of Measure	Sample Date	Result Value	ODWS	
				MAC	IMAC
Arsenic	ug/L	July 4, 2022	<0.0001		25.0
Chromium	ug/L	July 4, 2022	<0.002	50	
PCBs (Polychlorinated Biphenyls)	ug/L	July 4, 2022	<0.05		3.0

Treated Water Parameter	Unit of Measure	Treated Water: Well 5 Annual Average 2022
TKN (Total Kjeldahl Nitrogen)	mg/L	0.1
Total Phosphorus	mg/L	<0.01
o-Phosphate (O-PO4)	mg/L	<0.002
Dissolved Reactive Phosphorus	mg/L	<0.004
NH3 + NH4 as N	mg/L	<0.01

Major Maintenance Summary

WO #	Description
2636287	Capital Reservoir Commission
2638130	Miscellaneous Capital Items < \$200
2776110	Capital Well 6 Water Damage
2962641	Capital Well 6 Ceiling Repair
2964202	Capital Capital Controls SCADA Deficiency Repair
3014544	Capital Replacement Distribution Analyzer pH Probe
3066632	Capital DWQMS SAI Global External Audit
3104283	Capital Injector Check Valves
2637925	Capital New Flow Control Valve for Well #3
2638104	Capital Blanket Items under \$200
2638125	Capital Blanket Items under \$200
2638156	Capital Well System Communication Fail
2639245	Capital New Pressure Gauges for Well Pumping Stations
2676567	Capital Tower Inspection
2677579	Capital Chlorine Parts
2678752	Capital Chlorine Injection Panel Replacement Parts
2680917	Capital Well 8 Pull and Inspect
2680919	Capital Reservoir - Dual Pilot Valve Upgrade for PRV
2722272	Capital Well 8 Replacement Project
2723724	Capital Reservoir Door Locks Changed
2758015	Capital Leak Detection
2777347	Capital Well Communication Loss SCADA Passwords
2817806	2022 Annual Monitoring Report, Mississippi Mills (Almonte), Ontario
2821088	Capital Reports Not Generating Capital Controls
2867351	Capital New Dehumidifier for Tower
2868667	Capital Pressure Wash Water Tower

WO #	Description
2874081	Capital Replacement BPVs/PRVs for Hypo Panels
2963334	Capital Capital Controls SCADA Slow and Freezing
3018268	Capital Replace Heater Well 5

Distribution Highlights

Distribution Highlights were provided by the Municipality of Mississippi Mills.

Compliance Report Card

In August 2022, the MECP completed a detailed on-site Inspections for the Distribution system. The Inspection report rating was 100%. A desktop QEMS External Audit was completed and there were no reported non-conformances.

Maintenance & Operations

The following programs were completed in 2022:

- The water main flushing program (spring and fall)
- The valve exercising program continued
- Inspections and leak detection
- Radio frequency meter upgrades
- Several repairs – watermains, valves, hydrants, services, and curb stops



Commissioning:

The following projects were commissioned in 2022:

- Almonte Street Storage Reservoir
- Mill Street – Phase 1, 2 & 3 of downtown Almonte infrastructure project
- 333 Country Street watermain
- 36 Main Street East watermain connection

Appendix A

WTRS Data and 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: 8175-AQPH48
Permit Holder: THE CORPORATION OF THE TOWN OF MISSISSIPPI MILLS.
Received on: Feb 15, 2023 1:47 PM

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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