

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 2025

Issued: February 26, 2026

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 residents 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 municipal office is located at 3131 Old Perth Rd., Almonte, Ontario, K0A 1A0. View the 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	Last Inspection: October 27, 2025 – 95.35%
Ministry of Labour Inspections	No inspections for the reporting period
QEMS External Audit	Two (2) External Surveillance Audit (distribution and treatment subsystems), One (1) Re-Accreditation Audit (treatment subsystem)
AWQI	No AWQI's for the reporting period
Non-Compliance	Three (3) Non-Compliance items for the reporting period. See Compliance Summary for details
Spills	No Spills for 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 for the treatment subsystem. The Operating Authority for the distribution subsystem is the Roads and Public Works Department.

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 pump rated at a capacity of 9.6 L/s at 70.7m TDH. Disinfection is achieved through injection of 12% Sodium Hypochlorite into the feeder main prior to the treated water being discharged into a chlorine contact chamber.

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 pump rated at a capacity of 9.5 L/s at 99.5m TDH. A VFD was also installed to assist in flow control, reduce water pressure and electrical demand. Disinfection is achieved through injection of 12% Sodium Hypochlorite into the feeder main prior to the treated water being discharged into a chlorine contact chamber.

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 vertical 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 12% Sodium Hypochlorite into the feeder main prior to the treated water being discharged into a chlorine contact chamber.

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. Well 7 is equipped with a vertical turbine pump rated at a capacity of 44.8 L/s at 69.0m TDH, and Well 8 is equipped with a submersible pump rated at a capacity of 45.4 L/s at 67m TDH. Both pumps have a VFD installed to assist in flow control, water pressure and electrical demand. Disinfection is achieved through injection of 12% Sodium Hypochlorite into the feeder main of each well, prior to the treated water being discharged into a single 1200mm diameter chlorine contact pipe. A backup diesel generator is installed at the Well 7/8 pump house to provide standby power in the event of a power failure. Well 7 and 8 along with the other wells supply the 2,840m³ elevated storage tank and 2,500m³ ground level reservoir for system storage, pressure stabilization, and fire flow capacity.

A ground level reservoir and pumping station was commissioned in 2023 for additional storage volume of 2500m³. The pump house is located behind the Fire Hall on Almonte Street. It is equipped with three (3) centrifugal pumps, a static mixer, and a sodium hypochlorite injection system. The reservoir does not have a permanent backup generator but is equipped with a transfer switch and hookups for one to be connected.

The water distribution subsystem consists of approximately 48.9km of watermains ranging in size from 100mm to 450mm (excluding contact chambers). Material types of watermains include PVC, ductile iron, and cast iron. There are approximately 383 fire hydrants connected to the system.

Treatment Chemicals used during the reporting year:

Chemical Name	Use	Supplier
12% NSF Sodium Hypochlorite	Disinfection	Brenntag

Summary of Non-Compliance

Adverse Water Quality Incidents

Date	AWQI #	Details	Legislation	Corrective Action Taken
There were no Adverse Water Quality Incidents in 2025				

Non-Compliance

Legislation	Requirement(s) system failed to meet	Duration of the failure	Corrective Action	Status
O.Reg 170/03	Quarterly Nitrate/Nitrite Sample	Quarter 4	Sample Schedule was updated to include a section for each well, training completed on the revised schedule Feb 5 th , 2026, and monthly sample reviews added to Operational meetings	Closed

Non-Compliance Identified in a Ministry Inspection

Non Compliance	Legislation	Requirement(s) system failed to meet	Corrective Action	Status
NC-1	O.Reg 128/04 Section 22 and 23(1)	Operators in a subsystem must be appropriately certified, and the Operator designated as the ORO must hold a certificate for that type of system that is the same class as or higher than the class of the subsystem	The municipality will track Operator licencing going forward using the HR/payroll management system ADP Workforce, which has the capability to monitor certificate expiry dates and give advance notification for expiries. A formal Standard Operating Procedure has been developed for this process, ensuring the management team and employee are notified well in advance of the expiration, as well as confirmation the renewal has been completed. Operators are to be trained to this system.	Completed
NC-2	Section 12.1, Safe Drinking Water Act	Operator must be licenced	Please refer to Non-Compliance #1 Corrective Action	Completed

Flows

The Mississippi Mills Drinking Water System is operating on average under half the rated capacity for raw water flows for each well.

Raw Water Flows

The Raw Water flows are regulated under the Permit to Take Water. The 2025 Raw Flow Data was submitted to the Ministry electronically under permit #8175-AQPHA8. The confirmation is attached in Appendix A.

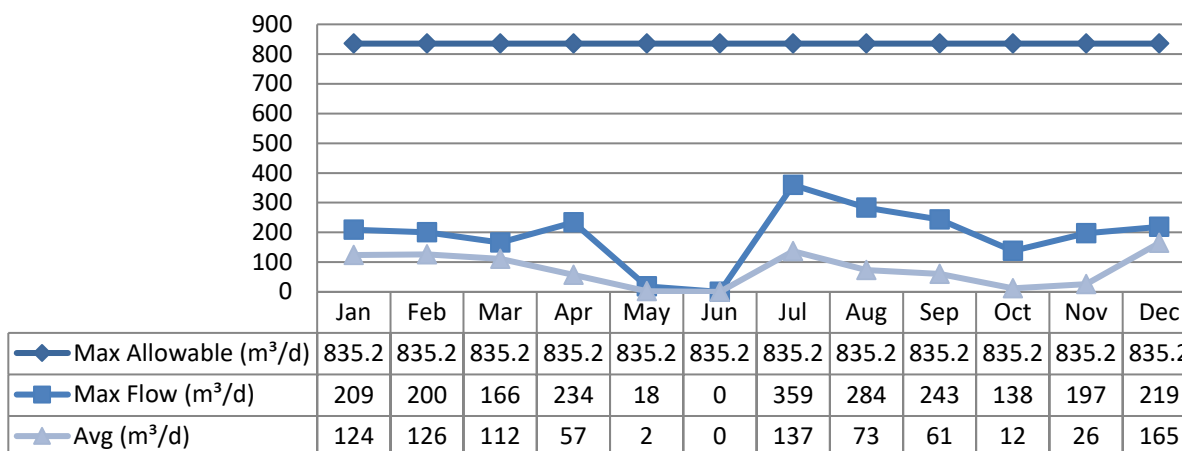
Well 3

Operational Challenges

Well 3 was initially taken out of service temporarily on April 13th, for further troubleshooting for the flow rate, which had been gradually decreasing over the year. Troubleshooting continued to May 21st, when it was determined the well and associated piping needed to be pulled for further inspection, and the well was taken out of service until the inspection and repairs could be completed. The well was put back in service on July 14th, after the drop pipe and motor were replaced. Low aquifer level, directly impacted by the local drought conditions, caused brief temporary shutdowns of the well after it was back in service in from July to October. In early October, there was a Free Chlorine Analyzer controller failure at Well 7&8, and the controller from Well 3 was transferred to Well 7&8, as these wells are critical to maintaining system pressure and Tower level. A new free chlorine controller was ordered following the failure, Well 3 was taken out of service during that time. Well 3 was out of service from October 8th to November 26th.

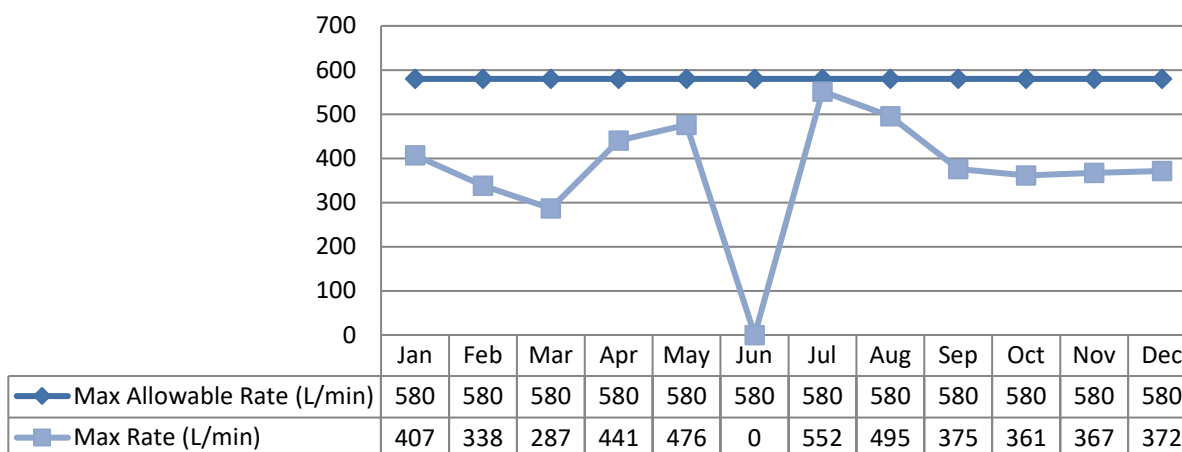
Total Monthly Flows (m³/d)

Max Allowable Volume PTTW



Monthly Rated Flows (L/min)

Max allowable Rate – PTTW



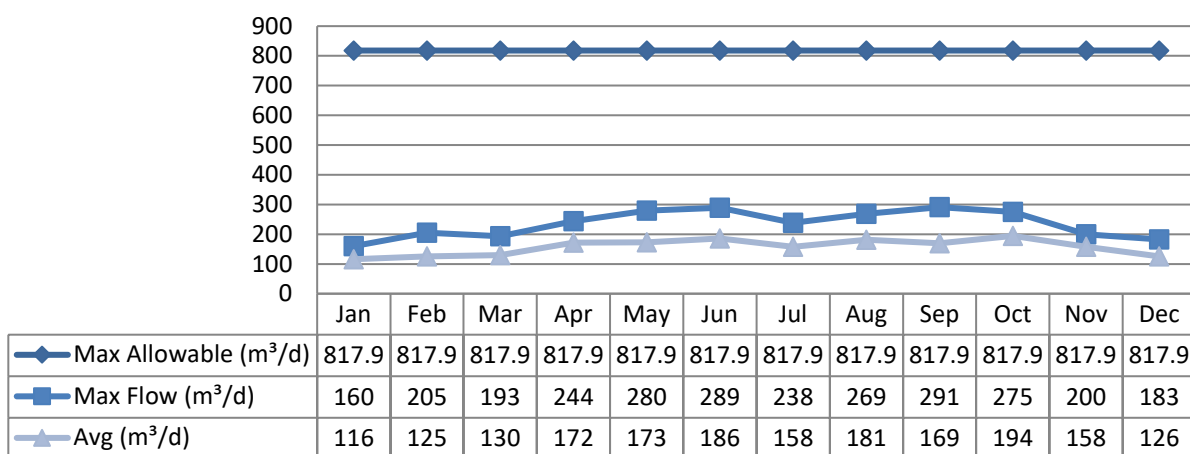
Well 5

Operational Challenges

There were no significant operational challenges for Well 5 in 2025.

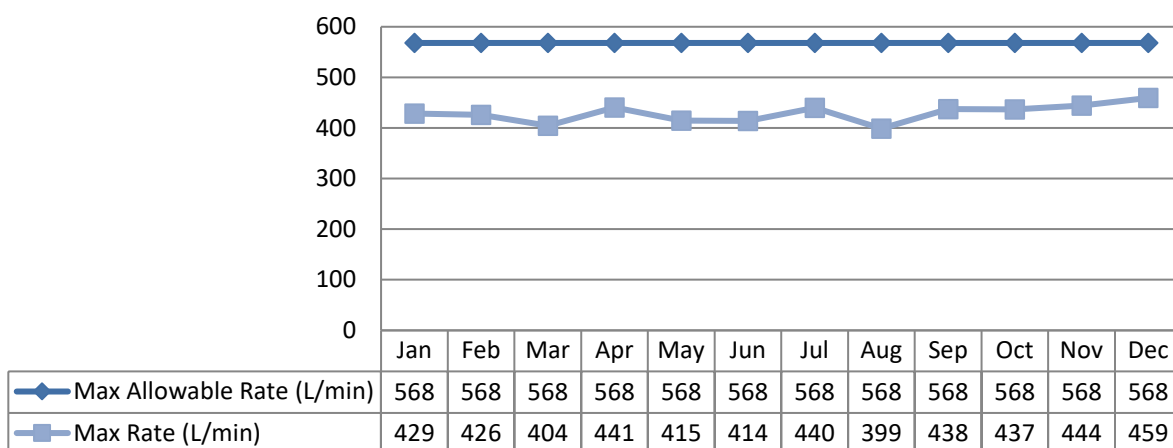
Total Monthly Flows (m³/d)

Max Allowable Volume PTTW



Monthly Rated Flows (L/min)

Max allowable Rate – PTTW



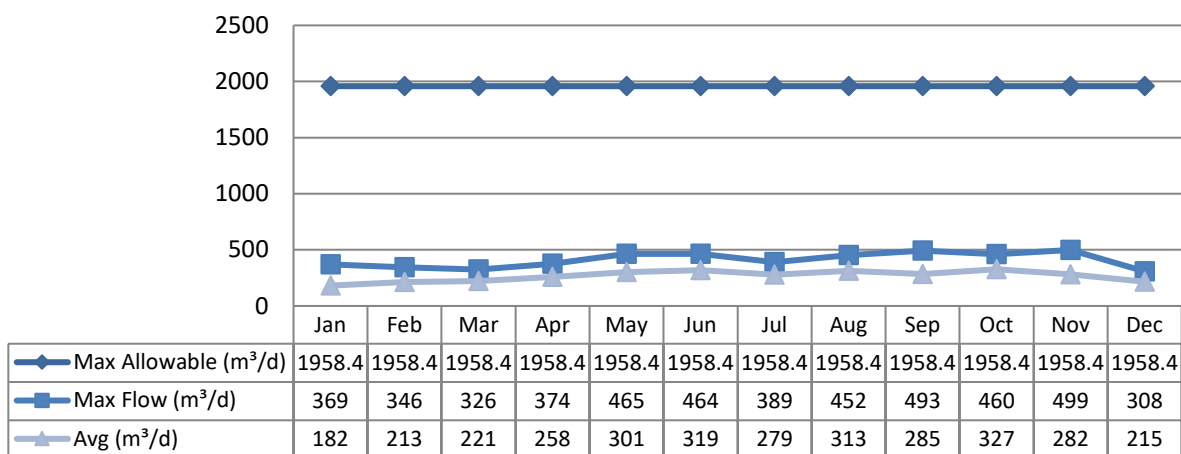
Well 6

Operational Challenges

There were no significant operational challenges for Well 6 in 2025.

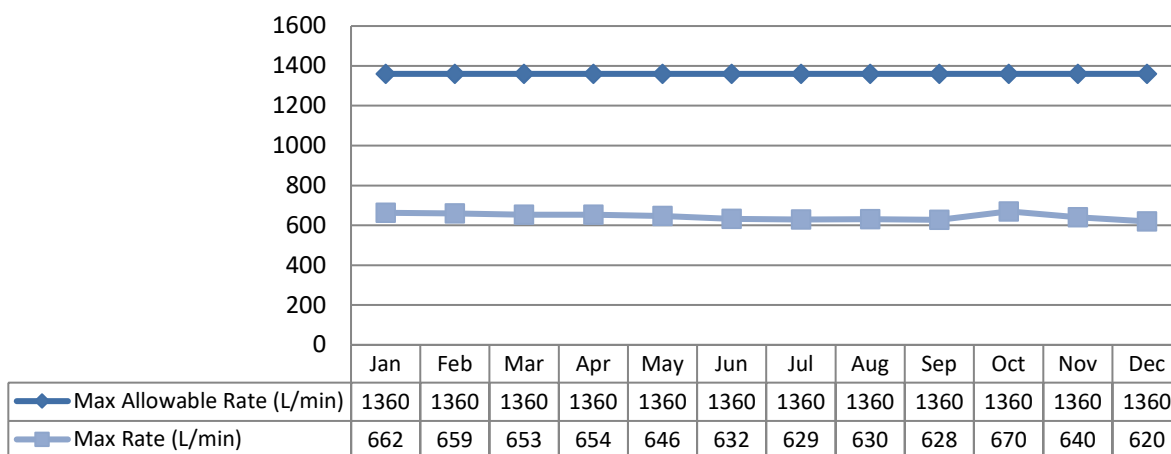
Total Monthly Flows (m³/d)

Max Allowable Volume PTTW



Monthly Rated Flows (L/min)

Max allowable Rate – PTTW



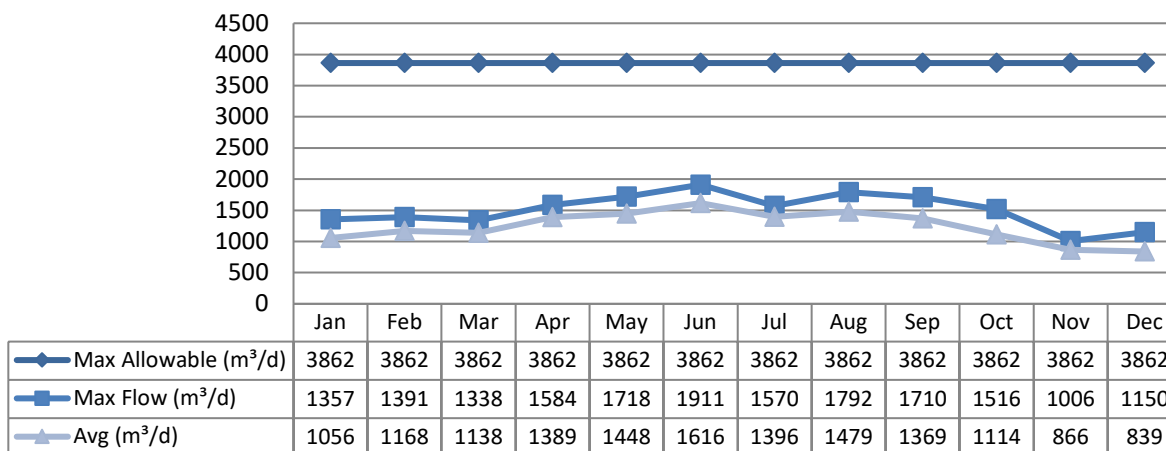
Well 7

Operational Challenges

There were no significant operational challenges for Well 7 in 2025.

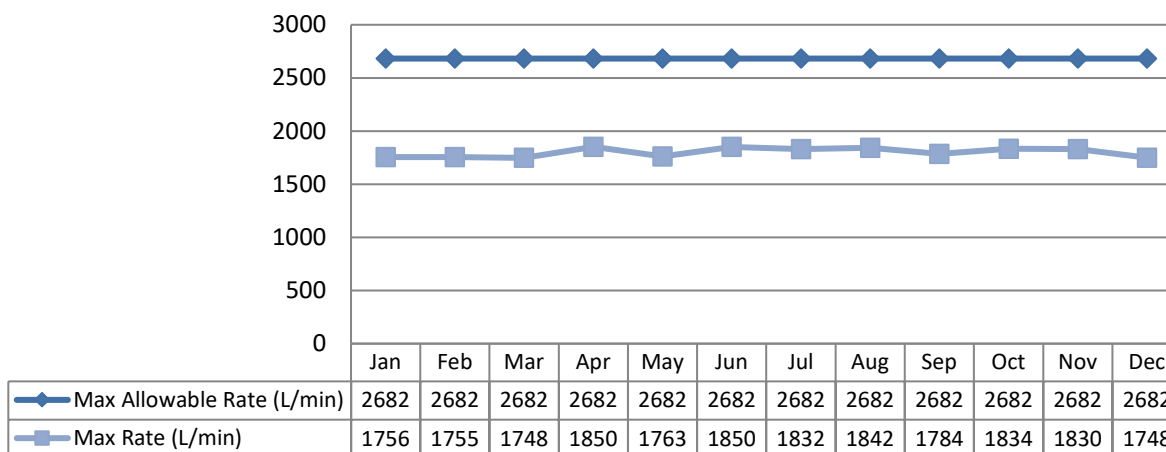
Total Monthly Flows (m³/d)

Max Allowable Volume PTTW



Monthly Rated Flows (L/min)

Max allowable Rate - PTTW



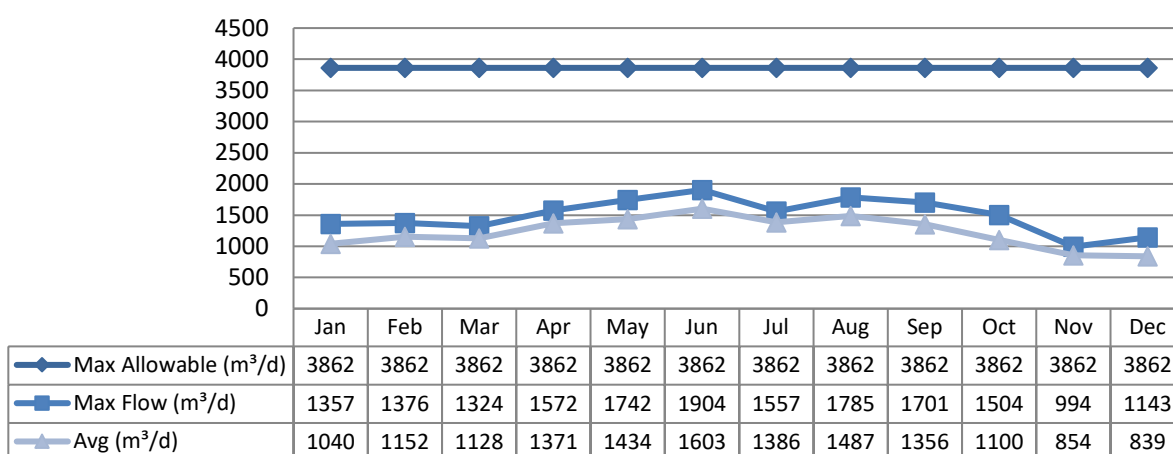
Well 8

Operational Challenges

There were no significant operational challenges for Well 8 in 2025. A flow test was completed on November 26th to verify the maximum flow rate of the well pump.

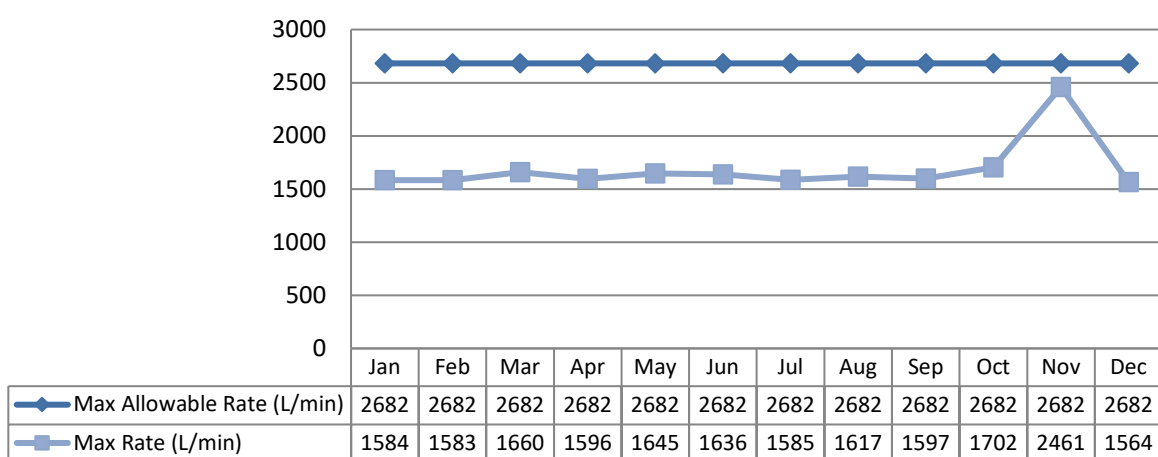
Total Monthly Flows (m³/d)

Max Allowable Volume PTTW



Monthly Rated Flows (L/min)

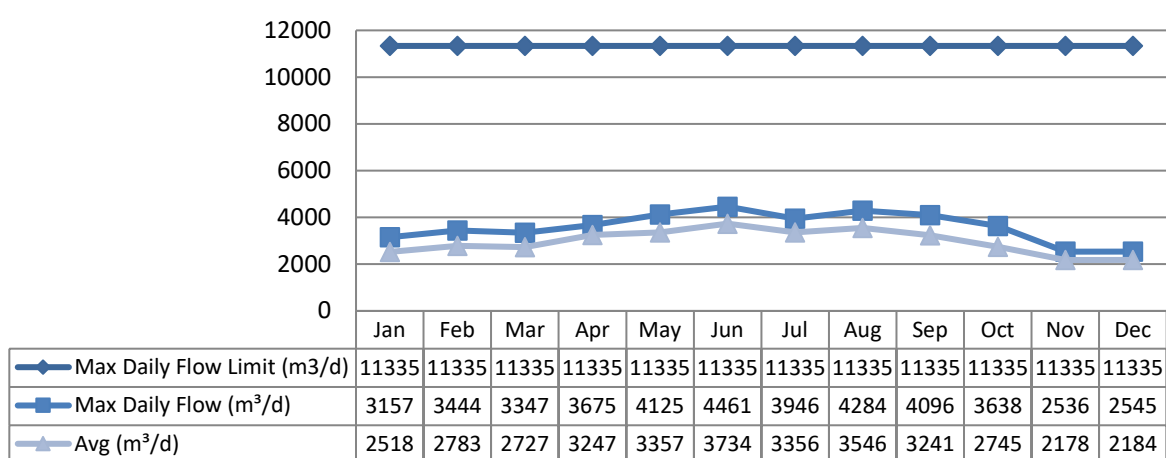
Max allowable Rate – PTTW



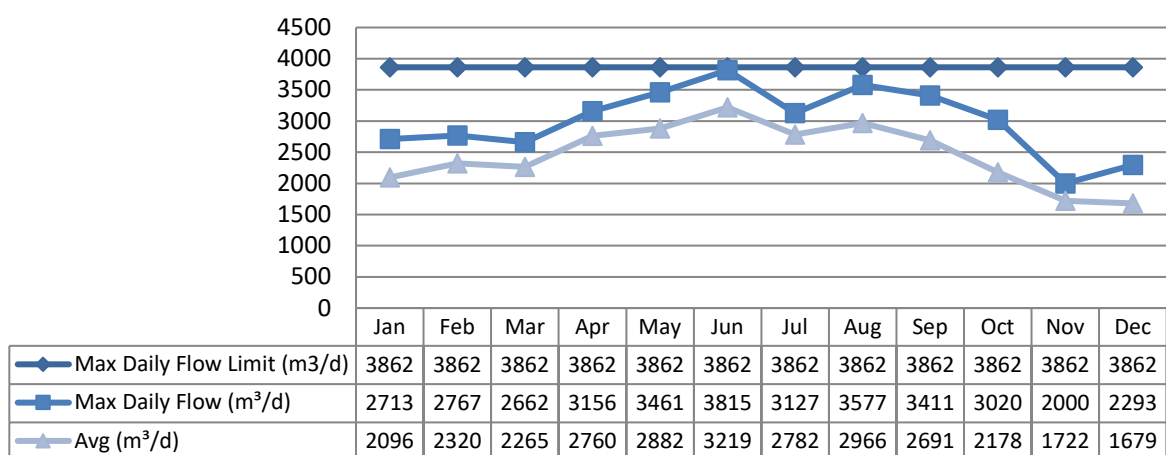
Treated Water Flows

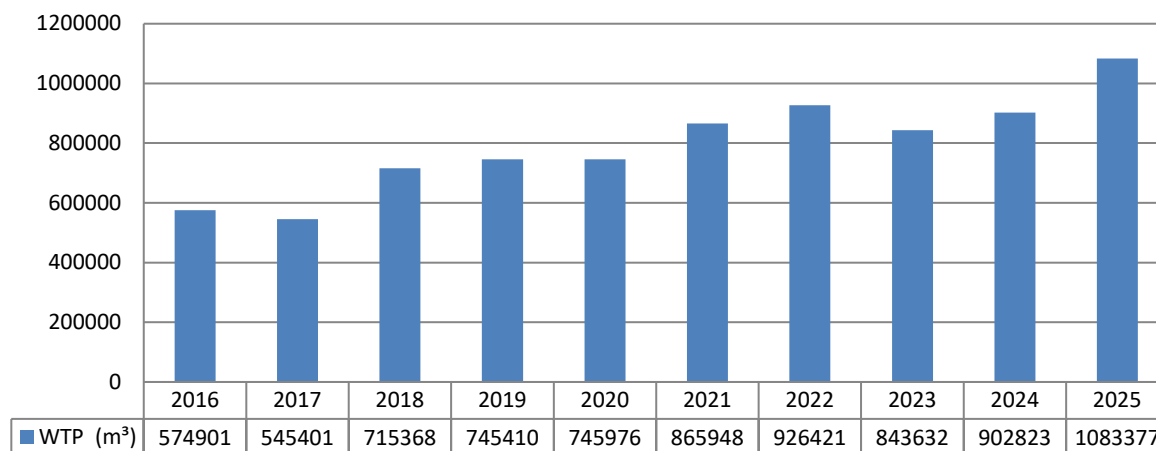
Treated Water Flows are regulated under the Municipal Drinking Water Licence. As per Schedule C, Table 1, the combined rated flows allow a total of 11,335m³/day. Wells 3, 5, and 6 rated capacity flow values reflect the maximum allowable volume for each well in the Permit to Take Water, please refer to Raw Flow trends. Wells 3, 5 and 6 maximum daily flows were less than 50% capacity for each well. Well 7 and 8 (combined) maximum flow was 99% of the rated flow of 3862 m³/day, and average daily flow was 64% of the rated capacity. The maximum flow of 99% attributed to high water demand within the distribution system as a result of a significant watermain leak, which was repaired in June. Leak detection was on-going throughout high demand timelines and repairs were conducted when leaks were identified.

Monthly Flow – All Sources



Monthly Flows – Well 7&8 Combined



Total Annual Flow ComparisonTotal 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	47*	0	0	0	1			
MMills DWS RW Well 5	52	0	0	0	0			
MMills DWS RW Well 6	52	0	0	0	7			
MMills DWS RW Well 7	52	0	0	0	0			
MMills DWS RW Well 8	52	0	0	0	0			
MMills DWS TW Well 3	39*	0	0	0	0	39*	2	2
MMills DWS TW Well 5	52	0	0	0	0	52	2	6
MMills DWS TW Well 6	52	0	0	0	0	52	2	2
MMills DWS TW Well 7	-	-	-	-	-	-	-	-
MMills DWS TW Well 8	-	-	-	-	-	-	-	-
MMills DWS TW Wells 7&8 combined	52	0	0	0	0	52	2	500
Distribution	208	0	0	0	0	208	2	22

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

RW = Raw Water

TW = Treated Water

Operational Testing

	No. of Samples Collected	Range of Results	
		Minimum	Maximum
Free Chlorine Residual, On-Line (mg/L) - TW3	8760	0.26	2.17
Free Chlorine Residual, On-Line (mg/L) - TW5	8760	0.44	2.00
Free Chlorine Residual, On-Line (mg/L) - TW6	8760	0.22	2.00
Free Chlorine Residual, On-Line (mg/L) - TW7/8	8760	0.56	1.73
Free Chlorine Residual, On-Line (mg/L) - DW	8760	0.56	1.62
Free Chlorine Residual, TW Field (mg/L) Lab Upload - TW3	46	0.68	1.58
Free Chlorine Residual, TW Field (mg/L) Lab Upload - TW5	60	0.95	1.93
Free Chlorine Residual, TW Field (mg/L) Lab Upload - TW6	60	0.92	1.45
Free Chlorine Residual, TW Field (mg/L) Lab Upload - TW7/8	60	0.93	1.82
Free Chlorine Residual, DW Field (mg/L) Lab Upload - DW	217	0.50	1.44

TW = Treated Water

DW = Distribution Water

Inorganic Parameters

These parameters are tested as a requirement under O.Reg 170/03. Sodium and Fluoride samples are required to be collected and tested every 5 years. Nitrate and Nitrite are tested quarterly and metals are tested annually, although only required every 36 months 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. As well 3 was out of service for the scheduled sample date, Well 3 samples were collected when the well was put back online.

- MAC = Maximum Allowable Concentration as per O.Reg 169/03
- <MDL = Below the laboratory minimum detection level

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	No. of Exceedances	
				MAC	1/2 MAC
Treated Water					
Antimony: Sb (ug/L) - TW3	2025/11/26	< MDL 0.1	6	No	No
Antimony: Sb (ug/L) - TW5	2025/10/21	< MDL 0.1	6	No	No
Antimony: Sb (ug/L) - TW6	2025/10/21	< MDL 0.1	6	No	No
Antimony: Sb (ug/L) - TW78	2025/10/21	< MDL 0.1	6	No	No
Arsenic: As (ug/L) - TW3	2025/11/26	< MDL 0.1	10	No	No
Arsenic: As (ug/L) - TW5	2025/10/21	< MDL 0.1	10	No	No
Arsenic: As (ug/L) - TW6	2025/10/21	0.1	10	No	No
Arsenic: As (ug/L) - TW78	2025/10/21	< MDL 0.1	10	No	No
Barium: Ba (ug/L) - TW3	2025/11/26	162	1000	No	No
Barium: Ba (ug/L) - TW5	2025/10/21	175	1000	No	No
Barium: Ba (ug/L) - TW6	2025/10/21	94	1000	No	No
Barium: Ba (ug/L) - TW78	2025/10/21	164	1000	No	No
Boron: B (ug/L) - TW3	2025/11/26	222	5000	No	No
Boron: B (ug/L) - TW5	2025/10/21	53	5000	No	No
Boron: B (ug/L) - TW6	2025/10/21	281	5000	No	No
Boron: B (ug/L) - TW78	2025/10/21	157	5000	No	No

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	No. of Exceedances	
				MAC	1/2 MAC
Cadmium: Cd (ug/L) - TW3	2025/11/26	< MDL 0.015	5	No	No
Cadmium: Cd (ug/L) - TW5	2025/10/21	< MDL 0.015	5	No	No
Cadmium: Cd (ug/L) - TW6	2025/10/21	< MDL 0.015	5	No	No
Cadmium: Cd (ug/L) - TW78	2025/10/21	< MDL 0.015	5	No	No
Chromium: Cr (ug/L) - TW3	2025/11/26	< MDL 1	50	No	No
Chromium: Cr (ug/L) - TW5	2025/10/21	< MDL 1	50	No	No
Chromium: Cr (ug/L) - TW6	2025/10/21	< MDL 1	50	No	No
Chromium: Cr (ug/L) - TW78	2025/10/21	< MDL 1	50	No	No
Mercury: Hg (ug/L) - TW3	2025/11/26	< MDL 0.02	1	No	No
Mercury: Hg (ug/L) - TW5	2025/10/21	< MDL 0.02	1	No	No
Mercury: Hg (ug/L) - TW6	2025/10/21	< MDL 0.02	1	No	No
Mercury: Hg (ug/L) - TW78	2025/10/21	< MDL 0.02	1	No	No
Selenium: Se (ug/L) - TW3	2025/11/26	1	50	No	No
Selenium: Se (ug/L) - TW5	2025/10/21	< MDL 1	50	No	No
Selenium: Se (ug/L) - TW6	2025/10/21	< MDL 1	50	No	No
Selenium: Se (ug/L) - TW78	2025/10/21	< MDL 1	50	No	No
Uranium: U (ug/L) - TW3	2025/11/26	0.83	20	No	No
Uranium: U (ug/L) - TW5	2025/10/21	0.83	20	No	No
Uranium: U (ug/L) - TW6	2025/10/21	0.91	20	No	No
Uranium: U (ug/L) - TW78	2025/10/21	1.27	20	No	No
Additional Inorganics					
Fluoride (mg/L) - TW3	2025/02/11	0.1	1.5	No	No
Fluoride (mg/L) - TW5	2025/02/11	< MDL 0.1	1.5	No	No
Fluoride (mg/L) - TW6	2025/02/11	< MDL 0.1	1.5	No	No
Fluoride (mg/L) - TW78	2025/02/11	0.2	1.5	No	No
Nitrate : (mg/L) - TW3	2025/02/11	0.17	10	No	No
Nitrate : (mg/L) - TW3	2025/05/13	0.06	10	No	No
Nitrate : (mg/L) - TW3	2025/08/12	0.18	10	No	No
Nitrate : (mg/L) - TW3	-	-	10	No	No
Nitrate : (mg/L) - TW5	2025/02/11	0.27	10	No	No
Nitrate : (mg/L) - TW5	2025/05/13	0.37	10	No	No
Nitrate : (mg/L) - TW5	2025/08/12	0.24	10	No	No
Nitrate : (mg/L) - TW5	2025/11/12	0.13	10	No	No
Nitrate : (mg/L) - TW6	2025/02/11	0.65	10	No	No
Nitrate : (mg/L) - TW6	2025/05/13	0.54	10	No	No
Nitrate : (mg/L) - TW6	2025/08/12	0.67	10	No	No
Nitrate : (mg/L) - TW6	2025/11/12	0.76	10	No	No
Nitrate : (mg/L) - TW78	2025/02/11	0.89	10	No	No
Nitrate : (mg/L) - TW78	2025/05/13	1.03	10	No	No
Nitrate : (mg/L) - TW78	2025/08/12	1.05	10	No	No
Nitrate : (mg/L) - TW78	2025/11/12	1.06	10	No	No
Nitrite : (mg/L) - TW3	2025/02/11	0.05	1	No	No
Nitrite : (mg/L) - TW3	2025/05/13	< MDL 0.05	1	No	No

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	No. of Exceedances	
				MAC	1/2 MAC
Nitrite : (mg/L) - TW3	2025/08/12	0.07	1	No	No
Nitrite : (mg/L) - TW3	-	-	1	No	No
Nitrite : (mg/L) - TW5	2025/02/11	0.06	1	No	No
Nitrite : (mg/L) - TW5	2025/05/13	< MDL 0.05	1	No	No
Nitrite : (mg/L) - TW5	2025/08/12	0.09	1	No	No
Nitrite : (mg/L) - TW5	2025/11/12	0.09	1	No	No
Nitrite : (mg/L) - TW6	2025/02/11	0.05	1	No	No
Nitrite : (mg/L) - TW6	2025/05/13	< MDL 0.05	1	No	No
Nitrite : (mg/L) - TW6	2025/08/12	0.07	1	No	No
Nitrite : (mg/L) - TW6	2025/11/12	0.11	1	No	No
Nitrite : (mg/L) - TW78	2025/02/11	0.05	1	No	No
Nitrite : (mg/L) - TW78	2025/05/13	< MDL 0.05	1	No	No
Nitrite : (mg/L) - TW78	2025/08/12	0.07	1	No	No
Nitrite : (mg/L) - TW78	2025/11/12	< MDL 0.05	1	No	No
Sodium / Na (mg/L) - TW3	2024/07/09	28.4	20*	Yes	Yes
Sodium / Na (mg/L) - TW5	2024/07/09	58.2	20*	Yes	Yes
Sodium / Na (mg/L) - TW6	2024/07/09	35.7	20*	Yes	Yes
Sodium / Na (mg/L) - TW78	2024/07/09	45.7	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 2023, and is only required to be reported once every 5 years.

Schedule 15 Sampling:

The Schedule 15 Lead and Alkalinity Sampling is required under O.Reg 170/03. This system is under the plumbing exemption, no plumbing samples were collected. Distribution hydrant samples are required semi annually, during the timeframes of December 15th to April 15th, and June 15th to October 15th.

Distribution System	Number of Sampling Points	Number of Samples	Range of Results		MAC (mg/L)	Number of Exceedances
			Minimum	Maximum		
Alkalinity (mg/L)	6	6	281	298	N/A	N/A
pH	6	6	7.01	7.71	N/A	N/A
Lead (mg/L)	6	6	0.00013	0.00213	0.01	0

Organic Parameters

These parameters are tested annually, although only required every 36 months 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					
1,1-Dichloroethylene (ug/L)-TW78	2025/10/21	< MDL 0.5	14	No	No

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
1,2-Dichlorobenzene (ug/L)-TW78	2025/10/21	< MDL 0.5	200	No	No
1,2-Dichloroethane (ug/L)-TW78	2025/10/21	< MDL 0.5	5	No	No
1,4-Dichlorobenzene (ug/L)-TW78	2025/10/21	< MDL 0.5	5	No	No
2,3,4,6-Tetrachlorophenol (ug/L)-TW78	2025/10/21	< MDL 0.2	100	No	No
2,4,6-Trichlorophenol (ug/L)-TW78	2025/10/21	< MDL 0.2	5	No	No
2,4-Dichlorophenol (ug/L)-TW78	2025/10/21	< MDL 0.2	900	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L)-TW78	2025/10/21	< MDL 1	100	No	No
2-methyl-4-chlorophenoxyacetic acid (ug/L)-TW78	2025/10/21	< MDL 10	100	No	No
Alachlor (ug/L) -TW78	2025/10/21	< MDL 0.3	5	No	No
Atrazine + N-dealkylated metabolites (ug/L)-TW78	2025/10/21	< MDL 0.5	5	No	No
Azinphos-methyl (ug/L)-TW78	2025/10/21	< MDL 1	20	No	No
Benzene (ug/L)-TW78	2025/10/21	< MDL 0.5	1	No	No
Benzo(a)pyrene (ug/L)-TW78	2025/10/21	< MDL 0.006	0.01	No	No
Bromoxynil (ug/L)-TW78	2025/10/21	< MDL 0.5	5	No	No
Carbaryl (ug/L)-TW78	2025/10/21	< MDL 3	90	No	No
Carbofuran (ug/L) -TW78	2025/10/21	< MDL 1	90	No	No
Carbon Tetrachloride (ug/L) -TW78	2025/10/21	< MDL 0.2	2	No	No
Chlorpyrifos (ug/L) -TW78	2025/10/21	< MDL 0.5	90	No	No
Diazinon (ug/L)-TW78	2025/10/21	< MDL 1	20	No	No
Dicamba (ug/L)-TW78	2025/10/21	< MDL 1	120	No	No
Dichloromethane (Methylene Chloride) (ug/L)-TW78	2025/10/21	< MDL 5	50	No	No
Diclofop-methyl (ug/L)-TW78	2025/10/21	< MDL 0.9	9	No	No
Dimethoate (ug/L)-TW78	2025/10/21	< MDL 1	20	No	No
Diquat (ug/L)-TW78	2025/10/21	< MDL 5	70	No	No
Diuron (ug/L)-TW78	2025/10/21	< MDL 5	150	No	No
Glyphosate (ug/L)-TW78	2025/10/21	< MDL 25	280	No	No
Malathion (ug/L)-TW78	2025/10/21	< MDL 5	190	No	No
Metolachlor (ug/L)-TW78	2025/10/21	< MDL 3	50	No	No
Metribuzin (ug/L)-TW78	2025/10/21	< MDL 3	80	No	No
Monochlorobenzene (Chlorobenzene) (ug/L)-TW78	2025/10/21	< MDL 0.5	80	No	No
Paraquat (ug/L)-TW78	2025/10/21	< MDL 1	10	No	No
PCB (ug/L)-TW78	2025/10/21	< MDL 0.05	3	No	No
Pentachlorophenol (ug/L)-TW78	2025/10/21	< MDL 0.2	60	No	No
Phorate (ug/L)-TW78	2025/10/21	< MDL 0.3	2	No	No
Picloram (ug/L)-TW78	2025/10/21	< MDL 5	190	No	No
Prometryne (ug/L)-TW78	2025/10/21	< MDL 0.1	1	No	No
Simazine (ug/L)-TW78	2025/10/21	< MDL 0.5	10	No	No
Terbufos (ug/L)-TW78	2025/10/21	< MDL 0.5	1	No	No
Tetrachloroethylene (ug/L)-TW78	2025/10/21	< MDL 0.5	10	No	No
Triallate (ug/L) -TW78	2025/10/21	< MDL 10	230	No	No

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
Trichloroethylene (ug/L)-TW78	2025/10/21	< MDL 0.5	5	No	No
Trifluralin (ug/L)-TW78	2025/10/21	< MDL 0.5	45	No	No
Vinyl Chloride (ug/L)-TW78	2025/10/21	< MDL 0.2	1	No	No
1,1-Dichloroethylene (ug/L)-TW6	2025/10/21	< MDL 0.5	14	No	No
1,2-Dichlorobenzene (ug/L)-TW6	2025/10/21	< MDL 0.5	200	No	No
1,2-Dichloroethane (ug/L)-TW6	2025/10/21	< MDL 0.5	5	No	No
1,4-Dichlorobenzene (ug/L)-TW6	2025/10/21	< MDL 0.5	5	No	No
2,3,4,6-Tetrachlorophenol (ug/L)-TW6	2025/10/21	< MDL 0.2	100	No	No
2,4,6-Trichlorophenol (ug/L)-TW6	2025/10/21	< MDL 0.2	5	No	No
2,4-Dichlorophenol (ug/L)-TW6	2025/10/21	< MDL 0.2	900	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L)-TW6	2025/10/21	< MDL 1	100	No	No
2-methyl-4-chlorophenoxyacetic acid (ug/L)-TW6	2025/10/21	< MDL 10	100	No	No
Alachlor (ug/L) -TW6	2025/10/21	< MDL 0.3	5	No	No
Atrazine + N-dealkylated metabolites (ug/L)-TW6	2025/10/21	< MDL 0.5	5	No	No
Azinphos-methyl (ug/L)-TW6	2025/10/21	< MDL 1	20	No	No
Benzene (ug/L)-TW6	2025/10/21	< MDL 0.5	1	No	No
Benzo(a)pyrene (ug/L)-TW6	2025/10/21	< MDL 0.006	0.01	No	No
Bromoxynil (ug/L)-TW6	2025/10/21	< MDL 0.5	5	No	No
Carbaryl (ug/L)-TW6	2025/10/21	< MDL 3	90	No	No
Carbofuran (ug/L) -TW6	2025/10/21	< MDL 1	90	No	No
Carbon Tetrachloride (ug/L) -TW6	2025/10/21	< MDL 0.2	2	No	No
Chlorpyrifos (ug/L) -TW6	2025/10/21	< MDL 0.5	90	No	No
Diazinon (ug/L)-TW6	2025/10/21	< MDL 1	20	No	No
Dicamba (ug/L)-TW6	2025/10/21	< MDL 1	120	No	No
Dichloromethane (Methylene Chloride) (ug/L)-TW6	2025/10/21	< MDL 5	50	No	No
Diclofop-methyl (ug/L)-TW6	2025/10/21	< MDL 0.9	9	No	No
Dimethoate (ug/L)-TW6	2025/10/21	< MDL 1	20	No	No
Diquat (ug/L)-TW6	2025/10/21	< MDL 5	70	No	No
Diuron (ug/L)-TW6	2025/10/21	< MDL 5	150	No	No
Glyphosate (ug/L)-TW6	2025/10/21	< MDL 25	280	No	No
Malathion (ug/L)-TW6	2025/10/21	< MDL 5	190	No	No
Metolachlor (ug/L)-TW6	2025/10/21	< MDL 3	50	No	No
Metribuzin (ug/L)-TW6	2025/10/21	< MDL 3	80	No	No
Monochlorobenzene (Chlorobenzene) (ug/L)-TW6	2025/10/21	< MDL 0.5	80	No	No
Paraquat (ug/L)-TW6	2025/10/21	< MDL 1	10	No	No
PCB (ug/L)-TW6	2025/10/21	< MDL 0.05	3	No	No
Pentachlorophenol (ug/L)-TW6	2025/10/21	< MDL 0.2	60	No	No
Phorate (ug/L)-TW6	2025/10/21	< MDL 0.3	2	No	No
Picloram (ug/L)-TW6	2025/10/21	< MDL 5	190	No	No
Prometryne (ug/L)-TW6	2025/10/21	< MDL 0.1	1	No	No

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
Simazine (ug/L)-TW6	2025/10/21	< MDL 0.5	10	No	No
Terbufos (ug/L)-TW6	2025/10/21	< MDL 0.5	1	No	No
Tetrachloroethylene (ug/L)-TW6	2025/10/21	< MDL 0.5	10	No	No
Triallate (ug/L) -TW6	2025/10/21	< MDL 10	230	No	No
Trichloroethylene (ug/L)-TW6	2025/10/21	< MDL 0.5	5	No	No
Trifluralin (ug/L)-TW6	2025/10/21	< MDL 0.5	45	No	No
Vinyl Chloride (ug/L)-TW6	2025/10/21	< MDL 0.2	1	No	No
1,1-Dichloroethylene (ug/L)-TW5	2025/10/21	< MDL 0.5	14	No	No
1,2-Dichlorobenzene (ug/L)-TW5	2025/10/21	< MDL 0.5	200	No	No
1,2-Dichloroethane (ug/L)-TW5	2025/10/21	< MDL 0.5	5	No	No
1,4-Dichlorobenzene (ug/L)-TW5	2025/10/21	< MDL 0.5	5	No	No
2,3,4,6-Tetrachlorophenol (ug/L)-TW5	2025/10/21	< MDL 0.2	100	No	No
2,4,6-Trichlorophenol (ug/L)-TW5	2025/10/21	< MDL 0.2	5	No	No
2,4-Dichlorophenol (ug/L)-TW5	2025/10/21	< MDL 0.2	900	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L)-TW5	2025/10/21	< MDL 1	100	No	No
2-methyl-4-chlorophenoxyacetic acid (ug/L)-TW5	2025/10/21	< MDL 10	100	No	No
Alachlor (ug/L) -TW5	2025/10/21	< MDL 0.3	5	No	No
Atrazine + N-dealkylated metabolites (ug/L)-TW5	2025/10/21	< MDL 0.5	5	No	No
Azinphos-methyl (ug/L)-TW5	2025/10/21	< MDL 1	20	No	No
Benzene (ug/L)-TW5	2025/10/21	< MDL 0.5	1	No	No
Benzo(a)pyrene (ug/L)-TW5	2025/10/21	< MDL 0.006	0.01	No	No
Bromoxynil (ug/L)-TW5	2025/10/21	< MDL 0.5	5	No	No
Carbaryl (ug/L)-TW5	2025/10/21	< MDL 3	90	No	No
Carbofuran (ug/L) -TW5	2025/10/21	< MDL 1	90	No	No
Carbon Tetrachloride (ug/L) -TW5	2025/10/21	< MDL 0.2	2	No	No
Chlorpyrifos (ug/L) -TW5	2025/10/21	< MDL 0.5	90	No	No
Diazinon (ug/L)-TW5	2025/10/21	< MDL 1	20	No	No
Dicamba (ug/L)-TW5	2025/10/21	< MDL 1	120	No	No
Dichloromethane (Methylene Chloride) (ug/L)-TW5	2025/10/21	< MDL 5	50	No	No
Diclofop-methyl (ug/L)-TW5	2025/10/21	< MDL 0.9	9	No	No
Dimethoate (ug/L)-TW5	2025/10/21	< MDL 1	20	No	No
Diquat (ug/L)-TW5	2025/10/21	< MDL 5	70	No	No
Diuron (ug/L)-TW5	2025/10/21	< MDL 5	150	No	No
Glyphosate (ug/L)-TW5	2025/10/21	< MDL 25	280	No	No
Malathion (ug/L)-TW5	2025/10/21	< MDL 5	190	No	No
Metolachlor (ug/L)-TW5	2025/10/21	< MDL 3	50	No	No
Metribuzin (ug/L)-TW5	2025/10/21	< MDL 3	80	No	No
Monochlorobenzene (Chlorobenzene) (ug/L)-TW5	2025/10/21	< MDL 0.5	80	No	No
Paraquat (ug/L)-TW5	2025/10/21	< MDL 1	10	No	No
PCB (ug/L)-TW5	2025/10/21	< MDL 0.05	3	No	No

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
Pentachlorophenol (ug/L)-TW5	2025/10/21	< MDL 0.2	60	No	No
Phorate (ug/L)-TW5	2025/10/21	< MDL 0.3	2	No	No
Picloram (ug/L)-TW5	2025/10/21	< MDL 5	190	No	No
Prometryne (ug/L)-TW5	2025/10/21	< MDL 0.1	1	No	No
Simazine (ug/L)-TW5	2025/10/21	< MDL 0.5	10	No	No
Terbufos (ug/L)-TW5	2025/10/21	< MDL 0.5	1	No	No
Tetrachloroethylene (ug/L)-TW5	2025/10/21	< MDL 0.5	10	No	No
Triallate (ug/L) -TW5	2025/10/21	< MDL 10	230	No	No
Trichloroethylene (ug/L)-TW5	2025/10/21	< MDL 0.5	5	No	No
Trifluralin (ug/L)-TW5	2025/10/21	< MDL 0.5	45	No	No
Vinyl Chloride (ug/L)-TW5	2025/10/21	< MDL 0.2	1	No	No
1,1-Dichloroethylene (ug/L)-TW3	2025/11/26	< MDL 0.5	14	No	No
1,2-Dichlorobenzene (ug/L)-TW3	2025/11/26	< MDL 0.5	200	No	No
1,2-Dichloroethane (ug/L)-TW3	2025/11/26	< MDL 0.5	5	No	No
1,4-Dichlorobenzene (ug/L)-TW3	2025/11/26	< MDL 0.5	5	No	No
2,3,4,6-Tetrachlorophenol (ug/L)-TW3	2025/11/26	< MDL 0.2	100	No	No
2,4,6-Trichlorophenol (ug/L)-TW3	2025/11/26	< MDL 0.2	5	No	No
2,4-Dichlorophenol (ug/L)-TW3	2025/11/26	< MDL 0.2	900	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L)-TW3	2025/11/26	< MDL 1	100	No	No
2-methyl-4-chlorophenoxyacetic acid (ug/L)-TW3	2025/11/26	< MDL 10	100	No	No
Alachlor (ug/L) -TW3	2025/11/26	< MDL 0.3	5	No	No
Atrazine + N-dealkylated metabolites (ug/L)-TW3	2025/11/26	< MDL 0.5	5	No	No
Azinphos-methyl (ug/L)-TW3	2025/11/26	< MDL 1	20	No	No
Benzene (ug/L)-TW3	2025/11/26	< MDL 0.5	1	No	No
Benzo(a)pyrene (ug/L)-TW3	2025/11/26	< MDL 0.006	0.01	No	No
Bromoxynil (ug/L)-TW3	2025/11/26	< MDL 0.5	5	No	No
Carbaryl (ug/L)-TW3	2025/11/26	< MDL 3	90	No	No
Carbofuran (ug/L) -TW3	2025/11/26	< MDL 1	90	No	No
Carbon Tetrachloride (ug/L) -TW3	2025/11/26	< MDL 0.2	2	No	No
Chlorpyrifos (ug/L) -TW3	2025/11/26	< MDL 0.5	90	No	No
Diazinon (ug/L)-TW3	2025/11/26	< MDL 1	20	No	No
Dicamba (ug/L)-TW3	2025/11/26	< MDL 1	120	No	No
Dichloromethane (Methylene Chloride) (ug/L)-TW3	2025/11/26	< MDL 5	50	No	No
Diclofop-methyl (ug/L)-TW3	2025/11/26	< MDL 0.9	9	No	No
Dimethoate (ug/L)-TW3	2025/11/26	< MDL 1	20	No	No
Diquat (ug/L)-TW3	2025/11/26	< MDL 5	70	No	No
Diuron (ug/L)-TW3	2025/11/26	< MDL 5	150	No	No
Glyphosate (ug/L)-TW3	2025/11/26	< MDL 25	280	No	No
Malathion (ug/L)-TW3	2025/11/26	< MDL 5	190	No	No
Metolachlor (ug/L)-TW3	2025/11/26	< MDL 3	50	No	No

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
Metribuzin (ug/L)-TW3	2025/11/26	< MDL 3	80	No	No
Monochlorobenzene (Chlorobenzene) (ug/L)-TW3	2025/11/26	< MDL 0.5	80	No	No
Paraquat (ug/L)-TW3	2025/11/26	< MDL 1	10	No	No
PCB (ug/L)-TW3	2025/11/26	< MDL 0.05	3	No	No
Pentachlorophenol (ug/L)-TW3	2025/11/26	< MDL 0.2	60	No	No
Phorate (ug/L)-TW3	2025/11/26	< MDL 0.3	2	No	No
Picloram (ug/L)-TW3	2025/11/26	< MDL 5	190	No	No
Prometryne (ug/L)-TW3	2025/11/26	< MDL 0.1	1	No	No
Simazine (ug/L)-TW3	2025/11/26	< MDL 0.5	10	No	No
Terbufos (ug/L)-TW3	2025/11/26	< MDL 0.5	1	No	No
Tetrachloroethylene (ug/L)-TW3	2025/11/26	< MDL 0.5	10	No	No
Triallate (ug/L) -TW3	2025/11/26	< MDL 10	230	No	No
Trichloroethylene (ug/L)-TW3	2025/11/26	< MDL 0.5	5	No	No
Trifluralin (ug/L)-TW3	2025/11/26	< MDL 0.5	45	No	No
Vinyl Chloride (ug/L)-TW3	2025/11/26	< MDL 0.2	1	No	No
Distribution Water					
Trihalomethane: Total (ug/L) RAA	2025	17	100	No	No
HAA Total (ug/L) RAA	2025	5.65	80.0	No	No

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

MDL = Below the laboratory detection level

RAA = Running Annual Average

Additional Legislated Requirements

Municipal Drinking Water Licence: Schedule C

The following tables are the sample results from additional legislated samples for Well 5 under Schedule C of the Municipal Drinking Water Licence:

The annual sample results from raw water at Well 5 are required as the adjoining lands were once used for storage of electrical transformers and hydro poles. The transformers and hydro poles are no longer stored at this location. It is important to note 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 has been provided for reference.

Raw Water Parameter	Unit of Measure	Sample Date	Result Value	ODWS	
				MAC	IMAC
Arsenic	ug/L	2025/07/08	<0.0001	10	
Chromium	ug/L	2025/07/08	<0.001	50	
PCBs (Polychlorinated Biphenyls)	ug/L	2025/07/08	<0.05		3.0

The following quarterly treated water samples are collected due to the Well 5's proximity to the decommissioned wastewater treatment lagoons. These results help to assess the integrity of the lagoon cells. There is no significant change from 2024 annual average results.

Treated Water Parameter	Unit of Measure	Treated Water: Well 5 Annual Average 2025
Total Ammonia Nitrogen	mg/L	<0.05
TKN (Total Kjeldahl Nitrogen)	mg/L	0.175
Total Phosphorus	mg/L	0.01
o-Phosphate (O-PO4)	mg/L	0.0075

The remaining semi-annual required samples are for Well 5, Well 6, and the three (3) multi-level groundwater monitoring wells located adjacent to, and down-gradient of the decommissioned sewage lagoons. Sampling is completed by a qualified consultant (Jp2g Consultants Inc.), and occurs during March to June and again during September to November. The 2025 Almonte Lagoon Groundwater Monitoring Report (2025 Jp2g) is attached as Appendix B. This report indicates results are within historical ranges, and there is no significant long term impact of the lagoon cells on the municipal well water quality. The tables below contain the analysis results for each sampling period:

April 16, 2025								
Raw Water Parameter	Well 5	Well 6	Test Well 1A	Test Well 1B	Test Well 2A	Test Well 2B	Test Well 3A	Test Well 3B
Alkalinity mg/L	317	279	320	322	296	283	280	281
Ammonia mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chloride mg/L	108	55.1	115	112	104	92	110	108
Nitrate mg/L	0.38	0.50	0.37	0.58	1.73	0.63	1.23	1.57
Nitrite mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Orthophosphate mg/L	<0.002	<0.002	0.002	<0.002	0.005	<0.002	<0.002	<0.002
Total Phosphorous mg/L	<0.01	<0.01	0.07	<0.01	0.04	0.01	<0.01	<0.01
pH @25°C	8.07	8.15	7.84	7.85	7.90	8.20	8.13	8.00
Total Kjeldal Nitrogen mg/L	0.2	0.1	0.3	0.2	0.2	0.2	0.2	0.2
Total Dissolved Solids mg/L	518	470	531	519	491	464	504	502
E. Coli CFU/100mL	0	0	0	0	0	0	0	0
Total Coliforms CFU/100mL	0	0	0	0	1	1	0	0

October 1, 2025								
Raw Water Parameter	Well 5	Well 6	Test Well 1A	Test Well 1B	Test Well 2A	Test Well 2B	Test Well 3A	Test Well 3B
Alkalinity mg/L	327	290	363	368	294	452	297	300
Ammonia mg/L	<0.05	<0.05	0.05	0.50	<0.05	<0.05	<0.05	<0.05
Chloride mg/L	114	103	137	134	124	143	121	121
Nitrate mg/L	0.16	0.96	<0.05	<0.05	1.47	<0.05	0.52	0.87

October 1, 2025								
Raw Water Parameter	Well 5	Well 6	Test Well 1A	Test Well 1B	Test Well 2A	Test Well 2B	Test Well 3A	Test Well 3B
Nitrite mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Orthophosphate mg/L	<0.002	<0.002	<0.002	0.028	0.013	0.004	0.002	0.004
Total Phosphorous mg/L	0.02	0.02	0.04	0.38	0.04	0.01	<0.01	0.01
pH @25°C	8.03	8.01	7.43	7.58	7.43	7.16	7.93	7.34
Total Kjeldal Nitrogen mg/L	0.2	0.2	0.3	1.8	0.1	0.3	0.1	0.2
Total Dissolved Solids mg/L	533	549	633	613	524	759	518	524
E. Coli CFU/100mL	0	0	0	0	0	0	0	0
Total Coliforms CFU/100mL	0	1	<2	970	0	0	1	0

Permit To Take Water: Condition 4.3

An annual well level monitoring report from a professional engineer is required under Condition 4.3 in the Permit to Take Water 8175-AQPHA8. The 2025 Annual Monitoring Report (Geofirma Engineering) is attached as Appendix C.

Major Maintenance Summary

WO #	Description
4490244	Well 6 Flow Meter Replacement
4554912	Well 3 Well Pump Removal and Service
4607612	Annual Analyzer Calibration/Verification Service
4760962	Well 7&8 Free Chlorine Analyzer Inspection and Well 3 Aquifer Level Device Inspection
4334891	Chemical Injection Valve/Quill Purchase Well 6
4336104	Well 3 Motor Check and 7/8 Transfer Switch Inspection
4336430	New DR300 Handheld Chlorine Analyzer
4336478	Communication Loss and Alarm History SCADA Programming Repair
4337120	Reservoir Free Chlorine Analyzer Refurbish
4337134	Well 7/8 Chlorine Injection Panel and Pump Replacement
4378136	Chlorine Injection Check Valves
4816242	3G to 4G Communications Upgrade All Wells

Distribution Highlights

The distribution subsystem is operated the Municipality of Mississippi Mills Roads and Public Works department.

Maintenance and Operations

- Fire flow testing
- Valve exercising of system valves
- Routine maintenance of PRV's and fire hydrants
- 10 Watermain breaks were repaired
- Comprehensive leak detection program was completed throughout the system
- Radio frequency meter replacements
- Purchase of Mueller Leakfinder ST Correlator with four days of on-site training by Mueller
- System repairs as required

In April 2025 distribution staff became aware of a watermain leak within the system due to daily flows trending higher than normal. In June the impact of the leak slowly escalated requiring staff to complete a comprehensive leak detection program throughout the entire system as well as implementing a watering ban for users. The watering ban was implemented to help reduce system demand and protect critical water infrastructure. Public outreach was completed which resulted in the identification of two leaking water service lines. The leak detection program resulted in staff identifying the location of the watermain leak and quickly completing the repair on June 23. In the days following the repair, the system demand returned to a normal level.

Commissioning of New Watermains

- Commissioning of watermain extension on Carss Street (Project 25-22)
- Commissioning of new watermains in Weavers Way development phase 1 (developer initiated)

Planning Initiatives (2026)

- Watermain extension and upgrades for County Road 29, Well 6, connection to storage reservoir, installation of one additional PRV on Hope Street, and replacement of St Andrews Street PRV
- Watermain replacement on King Street (entire length)
- Review of Well 7&8 aquifer capacity and Source Water Protection work
- Municipal Drinking Water License Renewal
- Planning stages to initiate Environmental Assessment for third river crossing

Appendix A - WTRS Data and Submission Confirmation





Ministry of the Environment,
Conservation and Parks

| [WT DATA](#) | [USER PROFILE](#) | [CONTACT US](#) | [HELP](#) | [HOME](#) | [LOGOUT](#) |

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Water Taking Data submitted successfully.

Confirmation:

Thank you for submitting your water taking data online.

Permit Number: 8175-AQPHA8
Permit Holder: THE CORPORATION OF THE TOWN OF MISSISSIPPI MILLS.
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LAUREN LACOMBE | 2026/02/05
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Yearly Summary (Flow) 2025									
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Units:	cubic meter per day	Daily Max:	291.0 on September 22
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Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
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1	98.80	103.36	148.54	207.95	178.00	220.01	0.00	219.54	151.60	168.96	165.26	131.32
2	156.10	103.63	104.36	102.43	125.53	140.75	73.34	62.56	180.34	240.06	165.36	170.09

2	156.19	138.63	101.28	102.13	129.33	184.75	73.34	62.56	180.21	219.00	165.26	170.08
3	116.56	120.53	168.53	207.16	78.41	146.79	238.40	190.39	193.81	131.11	175.71	107.00

Legend: '---' Missing Data '+' No Day

Yearly Summary (Flow) 2025	
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Units:	cubic meter per day	Daily Max:	498.91 on November 01
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Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

1	166.91	174.15	252.24	351.90	263.61	370.44	213.83	367.93	253.69	284.76	498.91	228.65
2	262.90	245.06	170.92	172.28	464.07	300.25	207.00	202.45	202.22	260.20	278.66	282.37

2	203.80	213.90	170.83	172.26	404.97	309.33	297.90	292.43	303.33	309.20	278.00	282.37
3	196.54	204.37	285.20	348.11	281.36	353.44	33.59	319.14	324.61	221.43	295.69	181.24

4	268.56	131.28	153.49	195.86	351.93	52.72	331.51	280.93	348.12	354.38	278.34	297.27
5	230.32	138.68	199.38	328.91	244.34	162.25	275.15	414.93	176.37	400.35	243.98	273.48
6	200.80	190.12	219.72	284.80	395.59	442.70	329.61	311.21	289.08	401.17	224.10	258.94
7	146.69	227.85	155.60	224.87	356.81	322.50	218.87	260.61	204.92	209.85	240.90	254.43
8	248.81	157.36	245.46	356.62	280.69	327.12	339.19	451.69	219.08	448.07	271.18	258.78
9	211.08	179.12	238.56	198.51	200.84	344.62	48.92	337.23	319.17	374.61	333.37	206.57
10	141.15	259.04	160.05	359.97	358.56	278.76	333.89	367.14	246.79	334.45	387.63	273.73
11	242.51	162.64	207.67	167.83	250.18	442.34	323.80	322.97	373.77	399.18	246.81	211.22
12	212.96	161.32	270.21	363.11	350.52	428.20	318.82	434.50	273.65	383.51	325.43	258.21
13	149.59	233.67	180.60	239.73	461.97	283.93	282.82	199.50	313.55	378.11	245.27	277.74
14	369.40	223.13	208.15	255.18	430.70	279.00	267.41	305.98	430.03	460.01	276.28	265.15
15	190.63	305.95	252.25	374.46	347.40	384.15	388.92	317.00	329.43	338.91	304.37	274.51
16	124.71	201.70	169.30	157.78	279.61	406.09	264.81	350.02	307.37	429.23	312.02	260.58
17	265.62	297.56	303.28	200.19	210.75	382.53	328.37	279.90	286.98	311.99	249.43	203.06
18	231.57	199.94	192.35	309.73	323.66	250.38	212.22	289.00	341.03	381.04	290.49	285.65
19	147.65	345.73	155.58	244.78	249.39	384.45	360.22	303.08	241.24	188.63	280.38	167.56
20	142.33	178.68	313.87	233.74	327.50	288.44	296.94	205.44	132.81	151.89	258.91	217.88
21	199.82	295.46	172.14	346.76	288.80	265.23	216.59	406.30	287.30	334.37	336.87	308.46
22	223.03	244.48	325.69	323.95	223.43	463.80	384.99	228.93	493.27	290.33	290.80	147.07
23	121.97	173.86	214.00	237.90	278.03	453.71	197.63	325.08	136.69	287.00	288.20	164.84
24	151.73	324.29	177.04	365.70	125.78	314.27	371.51	261.50	215.40	276.72	233.90	263.14
25	0.00	155.58	314.96	220.03	140.27	206.97	220.34	255.82	231.71	279.68	273.71	68.25
26	0.00	224.86	156.00	243.92	315.01	241.44	329.84	362.43	307.02	304.49	229.00	0.00
27	99.34	156.29	308.18	243.92	454.24	269.51	194.50	325.64	267.22	331.31	222.01	0.00
28	162.03	188.58	205.42	228.51	254.17	307.46	389.21	215.12	269.00	304.25	224.58	127.26
29	262.31		203.52	149.23	302.16	346.89	334.51	360.87	341.91	292.24	238.23	185.25
30	121.12		289.44	0.00	327.76	212.68	318.15	229.50	283.15	326.80	289.56	182.99
31	141.49		153.69		183.85		234.34	317.32		288.81		277.45
Min	0.00	131.28	153.49	0.00	125.78	52.72	33.59	199.50	132.81	151.89	222.01	0.00
Mean	181.76	212.56	221.09	257.61	300.77	319.18	279.30	312.88	284.92	326.99	282.30	214.89
Max	369.40	345.73	325.69	374.46	464.97	463.80	389.21	451.69	493.27	460.01	498.91	308.46

Yearly Summary (Flow) 2025	
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Units:	cubic meter per day	Daily Max:	1904.37 on June 16
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Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
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1	932.13	977.78	1150.79	1367.54	1393.67	1488.78	1527.65	1522.20	1437.19	1263.33	890.35	917.82
2	1081.53	1059.02	1145.08	1187.46	1488.52	1572.76	1384.46	1405.19	1321.62	1503.56	825.07	922.40

2	1001.33	1039.02	1145.06	1187.48	1488.33	1572.76	1584.48	1463.19	1321.02	1308.38	823.07	822.49
3	993.59	1048.58	1148.82	1323.89	1215.79	1439.75	1512.58	1466.52	1430.67	1278.30	869.51	797.88

4	1356.70	952.30	933.99	1246.73	1415.12	1671.22	1489.75	1537.63	1373.41	1304.49	884.81	876.98
5	1018.10	941.32	1113.87	1322.44	1303.50	1588.60	1488.85	1575.16	1116.46	1184.00	797.49	806.48
6	1057.92	975.35	1106.92	1323.62	1507.84	1663.85	1331.49	1600.59	1400.55	1188.52	862.58	760.70
7	953.44	1054.33	1003.97	1229.26	1596.14	1678.69	1225.94	1426.88	1202.42	1054.60	859.79	753.69
8	1112.37	1050.83	1134.50	1364.60	1576.89	1690.91	1390.25	1643.37	1244.62	1167.92	801.45	909.06
9	1017.27	1123.45	1155.21	1279.45	1329.02	1553.11	1381.35	1628.02	1504.84	1455.23	982.43	789.21
10	953.87	1357.16	1051.09	1388.19	1427.84	1563.17	1378.79	1697.90	1293.24	1178.27	852.84	811.79
11	1066.10	1258.07	1109.72	1161.00	1492.28	1600.20	1403.51	1785.06	1405.77	1181.87	728.15	784.97
12	1090.24	1069.62	1194.10	1424.33	1742.19	1616.62	1484.06	1649.45	1382.31	1135.33	958.27	764.68
13	966.12	1255.23	1024.07	1411.23	1390.27	1755.21	1318.54	1597.42	1387.48	1119.19	858.05	815.47
14	1103.81	1314.97	1132.29	1237.03	1277.36	1716.34	1305.46	1535.86	1700.79	1365.32	764.39	782.53
15	974.04	1281.33	1223.84	1453.99	1426.01	1876.58	1526.30	1481.66	1542.32	1225.56	888.06	809.14
16	950.48	1164.55	1056.40	1423.50	1543.79	1904.37	1414.76	1567.58	1429.99	1240.83	917.38	743.06
17	1112.95	1350.52	1227.03	1399.50	1259.27	1868.53	1289.08	1318.84	1456.25	1105.19	799.10	749.05
18	1041.24	1298.73	1037.48	1464.16	1358.11	1857.12	1280.57	1516.70	1549.79	1131.77	895.91	846.94
19	1007.33	1339.92	1024.73	1247.83	1466.30	1704.56	1397.64	1470.42	1269.37	915.06	868.05	814.44
20	990.88	1197.13	1252.85	1351.59	1365.83	1759.37	1274.55	1218.47	1218.12	1197.33	879.81	832.87
21	1068.48	1375.74	1090.12	1457.91	1449.94	1685.00	1222.21	1599.72	1312.39	985.62	993.81	910.75
22	1067.14	1329.93	1324.05	1571.98	1361.68	1845.22	1433.94	1353.54	1458.82	858.91	859.19	870.98
23	1013.41	1072.21	1117.33	1323.25	1326.04	1644.29	1275.55	1530.58	1270.20	972.08	851.08	845.93
24	1084.51	1174.68	1089.57	1473.57	1445.92	1429.58	1540.81	1426.06	1216.13	814.95	756.40	854.08
25	1168.92	1013.48	1229.43	1309.96	1342.12	1373.42	1292.42	1353.15	1168.86	827.66	913.88	947.83
26	1049.90	1135.83	1117.28	1415.73	1598.15	1284.10	1431.22	1459.71	1311.34	901.14	784.29	1143.20
27	1035.69	992.59	1223.71	1543.80	1696.84	1161.31	1186.98	1440.36	1259.03	976.31	936.06	953.70
28	969.73	1080.96	1061.78	1378.23	1484.53	1392.42	1557.00	1177.11	1264.62	902.76	783.41	870.31
29	1101.74		1122.90	1503.71	1398.41	1403.84	1480.50	1443.51	1456.43	863.34	705.66	762.83
30	914.88		1256.27	1547.02	1518.24	1311.64	1480.29	1230.74	1305.15	967.60	854.91	851.53
31	971.83		1100.52		1270.14		1245.29	1449.16		848.06		821.74
Min	914.88	941.32	933.99	1161.00	1215.79	1161.31	1186.98	1177.11	1116.46	814.95	705.66	743.06
Mean	1039.56	1151.63	1127.73	1371.08	1434.44	1603.35	1385.54	1487.37	1356.34	1100.45	854.07	839.42
Max	1356.70	1375.74	1324.05	1571.98	1742.19	1904.37	1557.00	1785.06	1700.79	1503.56	993.81	1143.20

Legend: --- Missing Data '+' No Day

Appendix B – Almonte Lagoon Groundwater Monitoring Report 2025

2025 Sewage Lagoon Monitoring Program Final

Almonte Communal Sewage Lagoons Municipality of Mississippi Mills

December 22, 2025

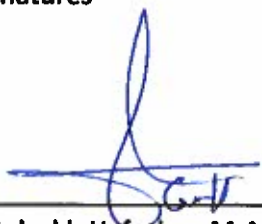
Jp2g Project # 17-6282J



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Jp2g Consultants Inc. Signatures


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Senior Environmental Technologist

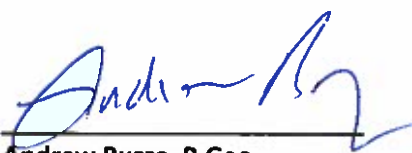

Report Reviewed and Approved By: **Andrew Buzza, P.Geo**
Senior Hydrogeologist



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Figure

Figure 1 Site Layout

Tables

Table 1 Summary of Water Levels
 Table 2 Groundwater Analytical Results

Appendices

Appendix A Municipal Drinking Water License No. 178-101
 Appendix B Laboratory Reports

1.0 BACKGROUND

Jp2g Consultants Inc. was retained by the Municipality of Mississippi Mills to complete the 2025 groundwater monitoring of wells that are located near the former Almonte Sewage Lagoons, and to prepare the annual report on the results. For file continuity, many details in this report are copied, and or repeated in part or in whole from reports produced by consulting firms previously retained to complete the monitoring for the site. These include: Geofirma Engineering Ltd., Intera Engineering Ltd., Oliver, Mangione, McCalla & Associates Ltd., and previous Jp2g Consultants Inc. reporting.

The scope of work for the monitoring and sampling program included the collection of water level measurements and sampling from three (3) multi-level groundwater monitoring wells that are located adjacent to, and down-gradient of the former Town of Almonte Municipal Sewage Treatment Lagoons. The former municipal lagoons are located outside of the Ward of Almonte (formerly the Town of Almonte). Additionally, water quality samples were collected from two municipal supply wells (i.e., Wells 5 and 6). Overall, the sampling and analysis was completed as requested by Municipal Drinking Water License No. 178-101

In 2025, two environmental monitoring events were completed, one in the spring and one in the fall. The spring sampling was completed in April, and the fall sampling was completed in October. All monitoring wells were inspected and reported to be in good working order during the 2025 monitoring events. It is recommended that all monitoring wells continue to be secure, identified, and protected from possible damage by equipment (i.e., vehicles, etc.) on an annual basis.

The Ontario Clean Water Agency (OCWA) currently operates the treatment and storage of the Municipality's drinking water system. The Municipality operates the distribution and supply components of the system. The Ontario Clean Water Agency is also responsible for the sampling and testing of the raw, treated, and distributed water in accordance with the Ministry of the Environment Conservation and Parks (MECP, MOE and/or the Ministry) Drinking Water License (178-101 Number 5) most recently issued on November 26, 2021. A copy of the License is provided in **Appendix A**.

Intera Engineering Ltd. completed a Well Head Protection Area (WHPA) study in 2003 focusing on the municipal water supply wells for the Town of Almonte. The study was completed in accordance with the MOE 2001/2002 Groundwater Studies Technical Terms of Reference (MOE, 2001). As part of this work, the Almonte Sewage Treatment Lagoons were identified as posing a significant potential contaminant threat. Based on the report recommendations, three multilevel monitoring wells (MW1, MW2 and MW3), which include one shallow interval and one deep interval, were installed between 2003 and 2005 (Intera Engineering Ltd., 2003b; 2006). The purpose of the wells is to assess the integrity of the clay liner of the former lagoons by monitoring groundwater quality along the edge of the property (MW1 and MW2) and downgradient of the site (MW3). In addition, MW3 serves as a sentinel well for Municipal Well No. 5. The location of the monitoring wells relative to the lagoons and nearby Municipal supply wells are shown in **Figure 1**. The Mississippi-Rideau Source Water Protection Plan that outlines the Well Head Protection Areas was approved in January 2015. A copy of the plan can be found at <http://www.mrsourcewater.ca>.

The wastewater treatment plant (WWTP) was built to replace the five-cell waste stabilization lagoon system that the Municipality had historically used. The treatment plant was constructed adjacent to the treatment lagoons. Construction started in August 2010 and was officially in use as of July 2012. Cells A through D are considered decommissioned by the MECP with the exception of Cell A which is in use as a peak flow attenuation pond. To date, decommissioning of the cells has consisted primarily of dewatering, thus removing the source of effluent loading to Cells B, C, and D.

As discussed, a Municipal Drinking Water License (No. 178-101) was issued on November 26, 2021. Accordingly, the 2025 sampling program has included the sampling as outlined in Schedule C (i.e., Table 5 and 6 sampling requirements for raw water). Arsenic, chromium, and PCB's for Well 5 are under the direction of OCWA sampling. The License is included in **Appendix A**.

Based on this, the recommendations from the 2024 groundwater monitoring program (Jp2g Consultants Inc., December 2024), and the Municipality's Request for Quotation dated February 27, 2020, the scope of work for 2025 that was completed included the following:

- Complete two rounds of groundwater sampling at all six monitoring intervals (MW1A/B, MW2A/B and MW3A/B) and at Almonte Municipal Wells 5 and 6.
- Submit samples to an accredited laboratory for a suite of general characteristic and bacteriological parameters (E. Coli and total coliforms) from all monitoring intervals and Municipal Wells 5 and 6.
- Provide an interpretation of water quality data in comparison to Ontario Drinking Water Standards, Objectives and Guidelines (ODWS).

2.0 FIELD METHODOLOGY

2.1 Monitoring Well Inspections

The condition of each monitoring well was inspected by Jp2g staff during sampling events. The following observations were made:

- Monitoring wells MW1A/B and MW2A/B were inspected and reported to be in good working condition during both the April and October 2025 sampling events.
- Margo plugs were installed in wells MW3A/B to prevent the upward flow of groundwater. During the inspection in April, groundwater pressure was observed pushing against the Margo plugs. Following the inspection and sampling, the Municipality retained a licensed contractor in May to extend the well casing. During the sampling in October, the Margo plugs were still in place; however, Jp2g staff removed them and replaced the extended wells with new caps. As of October 2025, the wells were reported to be in good working condition, with no upward movement of water beyond the well.
- All wells are operational and secured with protective casings.
- There was no apparent ponding or standing water around the base of the respective monitoring wells.

2.2 Water Levels and Sampling

In December 2025, a topographic survey was completed by Jp2g staff to confirm the top of riser and ground elevation at MW1A/B, MW2A/B, and the newly extended risers for MW3A/B. The survey was completed using a Spectra Precision GPS system with elevations referenced to geodetic datum NAD 83.

Water levels were measured in all monitoring intervals (MW1A/B, MW2A/B, MW3A/B) during the April and October sampling events, and no overflowing was noted in monitoring wells MW3A/B in October. A summary of current and recent historical water level measurements is shown in **Table 1**. Depth to water was measured with an electronic water level tape referenced from the top of PVC riser.

Following the collection of groundwater levels, groundwater samples were collected from each monitoring interval as well as from Almonte Municipal Supply Wells 5 and 6, which are representative of receptor and background water quality, respectively. Almonte Wells 5 and 6 were flushed for approximately five minutes prior to sampling. Prior to the sampling at MW3A/B, the Margo plugs were removed. They were replaced with new caps after sampling was completed in the fall. Groundwater samples were collected from each monitoring interval after the removal of standing water by purging up to three well volumes.

New dedicated Waterra™ tubing and foot vales were used for the collection of all groundwater samples from the monitoring intervals and subsequently discarded.

All groundwater samples were collected in laboratory-prepared sample containers and were stored/shipped in ice-filled coolers to Caduceon Environmental Laboratories Ltd. in Ottawa, Ontario, within 24 hours after sample collection. Each groundwater sample was analyzed for a suite of general chemistry and bacteriological parameters in accordance with the Drinking Water License and included alkalinity, ammonia, chloride, nitrate, nitrite, total dissolved solids, orthophosphate, total phosphorous, pH, total Kjeldahl nitrogen (TKN), E. Coli, total coliforms, and field parameters consisting of temperature, pH, and conductivity.

The 2025 analytical results, the historical range of values (2005-2024), and the minimum and maximum concentrations over the complete data set are provided in **Table 2** for the respective locations. In addition, the maximum concentration values from Well 6 are included for comparison purposes. All results are compared to the ODWS criteria.

2.3 Quality Assurance/Quality Control Program

A quality assurance/quality control (QA/QC) program was implemented during groundwater monitoring at the site. The program consisted of following: the Jp2g Field Sampling Protocols, use of field quality control samples, and internal laboratory QC performed by Caduceon Environmental Laboratories. Field QC samples included one blind duplicate sample (analyzed for general chemistry and bacteriological content). The blind duplicate sample was collected from monitoring well MW3A during both events.

3.0 RESULTS

3.1 Groundwater Flow

A summary of historical (2015 to 2024) and current (2025) groundwater levels are presented in **Table 1**. Groundwater elevations are based on water level recordings from a reference point, in this instance, the top of the respective plastic piezometers.

Groundwater elevations were generally consistent with historical measurements. In April, measured groundwater elevations ranged from approximately 103.12 to 103.58 meters above site datum (mASD) in the shallow intervals, and 101.62 to 103.13 mASD in the deeper intervals. Water elevations observed in October (now referenced geodetically) ranged from 118.69 to 119.01 meters above sea level (mASL) in the shallow intervals, and 118.73 to 118.81 mASL in the deeper intervals. The difference between the spring and fall water levels is consistent with historical sampling that typically reveals elevated water levels in the spring in comparison to the fall.

On balance, in 2025, vertical gradients revealed primarily downward movement of groundwater between the shallow and deep piezometer settings. The October 2025 water levels from MW3 suggest a slight upward movement of groundwater.

Horizontal hydraulic gradients suggest a slight gradient east-northeast from MW1 and MW2 towards MW3. This is consistent with historical observations and the results of the Municipal Groundwater Study (Intera Engineering Ltd., 2003).

3.2 Groundwater Quality

Table 2 summarizes the current groundwater analytical results for parameters targeted to identify potential impacts from the sewage treatment effluent. Also included are:

- historical ranges of groundwater concentrations (2005 - 2024)
- maximum and +10% concentrations from background conditions (Well 6)
- RUC and ODWS values for comparative purposes.

Laboratory results are included in **Appendix B**.

3.3 Representative Source, Receptor, and Background Concentrations

Almonte Municipal Well 5 is located approximately 250 m downgradient of the source (former lagoons) and is considered the receptor. Consistent with historical sampling and reporting, Municipal Well 6, which is located approximately 500 m east and cross gradient from the treatment lagoons, is considered to represent background concentrations.

The ranges of groundwater concentrations for Almonte Well 5 (receptor) are included in **Table 2** for comparison purposes. Geofirma (2016) reported that historical concentrations from Well 5 (OMM 2001; OCWA 2004 range values; Intera 2005-2010; and Geofirma 2011-2016) suggest that there does not appear to be any long-term evidence of impact at this location as a result the treatment lagoons. The 2025 sampling results reveal parameters that are within the historical range of values and continue to suggest that there is no long-term impact evident at this location.

Similarly, current water quality results from the background location (Municipal Well 6) are all within, or lower than historical values.

4.0 2025 GROUNDWATER SAMPLING RESULTS

All groundwater samples were analyzed for alkalinity, ammonia, chloride, nitrate, nitrite, orthophosphate, total phosphorous, pH, TKN, TDS, E. Coli, and total coliforms. All groundwater concentrations were compared to background concentrations (maximum background values from Municipal Well 6) and the ODWS.

From the list of indicator parameters, eight (8) have provincial standards for comparison. The ODWS list includes:

Maximum Allowable Concentrations (MAC)

nitrate (10 mg/L)

Nitrite (1 mg/L)

E.coli (0 counts/100 mL)

Total coliforms (0 counts/100 mL)

Aesthetic Objective (AO)

chloride (250 mg/L)

TDS (500 mg/L)

Operational Guidelines (OG)

pH (6.5-8.5)

Alkalinity (30-500 mg/L), Operational guidelines for alkalinity are only applicable when the water treatment includes additives to assist with filtration, which for Almonte Well 5 is not applicable

Based on the results of the 2025 groundwater sampling, the following observations are made:

Parameter Concentrations Exceeding ODWS OG and AO:

TDS was detected at levels above the ODWS at monitoring points MW1A, MW1B, MW2A, MW2B, MW3A, MW3B, and Well 5. Elevated TDS levels were also detected at background Municipal Well 6.

Concentrations greater than 10% above the max background value:

Several parameters revealed concentrations that were greater than +10% of the maximum background values. They included the following:

- Alkalinity: MW1A, MW1B, MW2B
- Chloride: MW1A, MW1B, MW2A, MW2B, MW3A, MW3B, Well 5
- Ammonia Total: MW1B
- Nitrate MW2A, MW3A, MW3B

Bacteriological Content

In 2025, the following bacteriological content was measured:

- MW1A: October – total coliforms <2 counts/100 mL
- MW1B: October – total coliforms 970 counts/100 mL
- MW2A: April – total coliforms 1 counts/100 mL
- MW2B: April – total coliforms 1 counts/100 mL
- MW3A: April and October – total coliforms 1 and 2 counts/100 mL, respectively
- Municipal Well 6: October – total coliforms 1 counts/100 mL

Historical bacteriological sampling detected total coliforms in both the shallow and deep monitoring wells, specifically MW1B (October 2024) and MW1A (April and October 2024). Total coliforms were again observed in both wells during the most recent sampling event—MW1A showing lower levels, while MW1B exhibited significantly higher concentrations compared to those recorded in October 2024.

Total coliforms were also detected in additional monitoring wells, including MW2A, MW2B, and MW3A, as well as in the background Municipal Well 6. The presence of bacterial content in MW1A, MW2A, and MW3A likely results from vertical migration of bacteria originating from residual contamination near the former lagoons, facilitated by hydraulic connections and geological pathways. The presence of Total Coliforms in Municipal Well 6 is from the raw water and is not reportable.

The elevated bacteriological content in the shallow wells (MW1B and MW2B) may indicate influence from the former lagoons, given their proximity to Cells C and D and their location within the direct flow path of shallow groundwater. Historical data for MW1B also shows total coliform detections in 2017, 2018, 2023, and 2024.

Total coliforms were not detected in the shallow setting MW3B and Municipal Well 5 during the 2025 sampling.

4.1 Impact Assessment

The Reasonable Use approach to the protection of groundwater quality was developed by the Ministry to determine acceptable limits of contaminant discharge from regulated municipal landfills based on the reasonable use of groundwater on adjacent properties. Although the Ministry's Reasonable Use approach is not applicable to the Almonte Treatment Lagoons, it was used as a guide (for comparison purposes only) to assess potential impacts to nearby groundwater. Under the Reasonable Use approach, the maximum concentration of a particular contaminant that is permitted to exist in groundwater which is leaving the site property (in this case the Almonte Treatment lagoon property) is termed the Reasonable Use Criteria (RUC). The RUC values are calculated based on the ODWS criteria and a representative background concentration for that particular parameter.

An assessment of groundwater quality impacts from the Almonte Treatment lagoons was completed by calculating the RUC (MOE Guidance B-7, MOE, 1994) for all indicator parameters that have a provincial drinking water guideline (ODWS). Background concentrations for each of the indicator parameters were calculated using the maximum parameter concentration from Municipal Well 6. The calculated "hypothetical" RUC values for the groundwater parameters with applicable ODWS are:

- Chloride - 176 mg/L
- Nitrate – 3.25 mg/L
- Nitrite - 0.29 mg/L

- Non-detect for both total coliforms and E. Coli.

Non-health related parameters (chloride) have a permitted degradation of 50% (0.5), while health related parameters (nitrate, nitrite, E. Coli, and total coliforms) have a permitted degradation of 25% (0.25).

The sewage lagoons on the site were drained in 2012 following the opening of the WWTP, thereby eliminating it as a source of bacteriological input. Any bacteriological component of contamination may be residual.

Based on the comparison of the detected concentrations in the monitoring wells to the calculated RUC values, parameters that revealed RUC exceedances in 2025 include:

- MW1A –October 2025
Total coliforms = <2 counts/100 mL > RUC of non-detect
- MW1B – October 2025
Total coliforms = 970 counts/100 mL > RUC of non-detect
- MW2A: April 2025
Total coliforms = 1 counts/100 mL > RUC of non-detect
- MW2B: April 2025
Total coliforms = 1 counts/100 mL > RUC of non-detect
- MW3A: April and October 2025, respectively
Total coliforms = 1 counts/100 mL > RUC of non-detect
Total coliforms = 2 counts/100 mL > RUC of non-detect
- Municipal Well 6: October 2025
Total coliforms = 1 counts/100 mL > RUC of non-detect

4.2 Quality Assurance/Quality Control

Laboratory analyses in 2025 were completed by Caduceon Environmental Laboratories a CALA (Canadian Association for Laboratory Accreditation) certified laboratory. Caduceon completed all analyses in accordance with internal laboratory QC programs. Complete laboratory analytical reports for Jp2g's 2025 sampling program and duplicate analyses are provided in **Appendix B**.

Relative percent differences were calculated for the duplicate groundwater samples collected from MW3A in April and October. In all instances, the relative percent differences were 15% or lower except for TKN (October 2025 0.1 mg/L vs. 0.2 mg/L) and Total Coliform (April 2025 0.0 mg/L vs. 1 mg/L and October 2025 1 mg/L vs. 2 mg/L).

Overall, the results indicate acceptable analytical precision and reproducibility. Based on review of the laboratory and field QA/QC documentation, the groundwater analytical results are considered of acceptable quality and can be used in this report without qualification.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the above results, the following conclusions are provided:

- All monitoring wells are operational and secured with protective casings and locks. There are no significant environmental concerns with the condition of the wells.
- The Margo plugs in MW3A/B may not have been functioning with 100% efficiency during periods of positive upward groundwater pressure in April 2025, and groundwater was noted to be above the top of the piezometer. Following the inspection and sampling, the Municipality retained a licensed contractor to extend the well casing in May 2025. During the sampling in October 2025 the wells were reported to be in good working condition, with no upward movement of water beyond the well.
- Groundwater elevations are consistent with historical data and groundwater continues to flow east-northeast toward Municipal Well 5.
- Total coliforms were detected in MW1A, MW1B, MW2A, MW2B, and MW3A, as well as in the background Municipal Well 6. The presence of the total coliforms is not dissimilar to previous years where bacteriological content has been measured.
- Continued testing for bacteriological content is recommended.

Based on the above, the following is recommended:

- It is recommended to ensure that all monitoring wells are secure, identified, and protected from possible damage by equipment (i.e. vehicles etc.). Maintenance should be conducted on the respective monitoring wells as required to avoid the presence of excess deposits and to evaluate the need for well replacement.
- Sampling of the six monitoring well intervals and two municipal wells should continue. We, recommend that the program be reduced to one sample annually in the spring.
- Groundwater laboratory testing should consist of the suite of general chemistry parameters (alkalinity, ammonia, chloride, nitrate, nitrite, orthophosphate, phosphorus, TKN, TDS, and pH) and bacteriological parameters (E.coli. and total coliforms) at all sampling locations bi-annually as per License No. 178-101's Schedule C, Table 5 and Table 6. Standard field parameters should be collected at the time of the fieldwork (conductivity, pH, DO, and temperature).

6.0 REFERENCES

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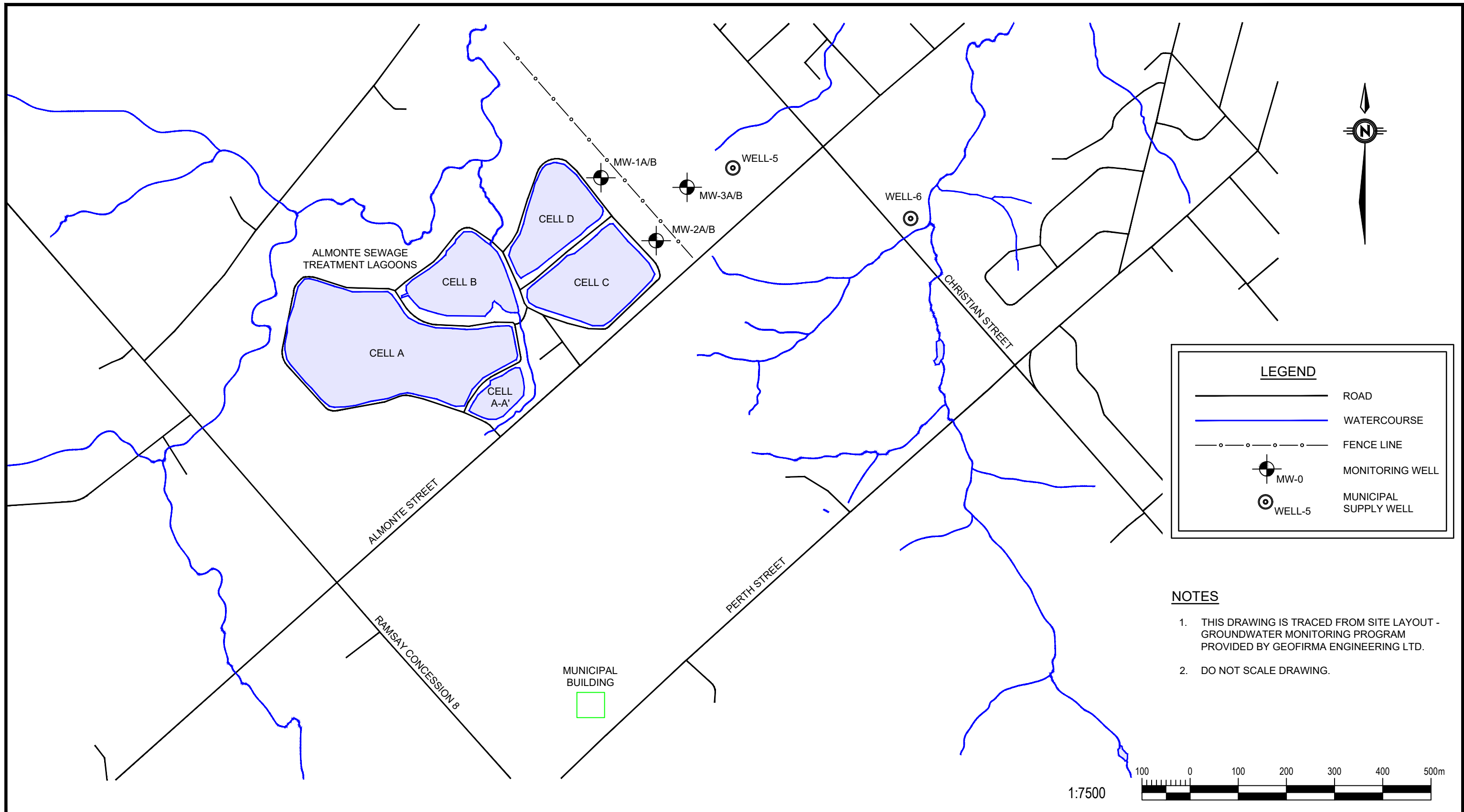
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FIGURE



ALMONTE SEWAGE LAGOONS MONITORING
ALMONTE, ONTARIO
~
SITE LAYOUT

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DRAFTED: GM	REVISION DATE: 2025-10-27
CHECKED: GH	APPROVED: AB
SCALE: 1:7500	REVISION No.: .
FIGURE 1	

TABLES

**Table 1 - Almonte Sewage Lagoons
Groundwater Level Data**

Monitoring	Reference	Top of Pipe	Ground	Apr-15		Jul-15		16-Jul	
Well	Mark	Elevation	Elevation	Static	Elevation	Static	Elevation	Static	Elevation
MW#1A (Deep)	T/Plastic	103.79	102.94	1.24	102.55	6.92	96.87	5.91	97.88
MW#1B (Shallow)	T/Plastic	103.81	102.94	1.24	102.57	6.80	97.01	5.80	98.01
MW#2A (Deep)	T/Plastic	104.64	103.77	1.78	102.86	7.54	97.10	6.58	98.06
MW#2B (Shallow)	T/Plastic	104.64	103.77	2.92	101.72	7.72	96.92	6.91	97.73
MW#3A (Deep)	T/Plastic	100.54	100.16	0.67	99.87	6.18	94.36	5.35	95.19
MW#3B (Shallow)	T/Plastic	100.50	100.16	0.51	99.99	6.29	94.21	5.32	95.18

Monitoring	Reference	Top of Pipe	Ground	Oct-16		Jun-17		Aug-17	
Well	Mark	Elevation	Elevation	Static	Elevation	Static	Elevation	Static	Elevation
MW#1A (Deep)	T/Plastic	103.79	102.94	6.44	97.35	-		-	
MW#1B (Shallow)	T/Plastic	103.81	102.94	6.32	97.49	1.76	102.05	1.11	102.70
MW#2A (Deep)	T/Plastic	104.64	103.77	7.11	97.53	2.40	102.24	1.73	102.91
MW#2B (Shallow)	T/Plastic	104.64	103.77	7.53	97.11	3.82	100.82	3.10	101.54
MW#3A (Deep)	T/Plastic	100.54	100.16	5.89	94.65	1.28	99.26	0.57	99.97
MW#3B (Shallow)	T/Plastic	100.50	100.16	5.82	94.68	1.20	99.30	0.48	100.02

Monitoring	Reference	Top of Pipe	Ground	Aug-18		Dec-18		May-19	
Well	Mark	Elevation	Elevation	Static	Elevation	Static	Elevation	Static	Elevation
MW#1A (Deep)	T/Plastic	103.79	102.94	7.63	96.16	3.26	100.53	0.26	103.53
MW#1B (Shallow)	T/Plastic	103.81	102.94	7.63	96.18	2.96	100.85	0.35	103.46
MW#2A (Deep)	T/Plastic	104.64	103.77	8.50	96.14	3.73	100.91	0.95	103.69
MW#2B (Shallow)	T/Plastic	104.64	103.77	8.72	95.92	5.58	99.06	2.76	101.88
MW#3A (Deep)	T/Plastic	100.54	100.16	7.22	93.32	2.52	98.02	-0.20	100.74
MW#3B (Shallow)	T/Plastic	100.50	100.16	7.15	93.35	2.45	98.05	-0.28	100.78

Monitoring	Reference	Top of Pipe	Ground	Sep-19		May-20		Sep-20	
Well	Mark	Elevation	Elevation	Static	Elevation	Static	Elevation	Static	Elevation
MW#1A (Deep)	T/Plastic	103.79	102.94	8.52	95.27	1.62	102.17	7.30	96.49
MW#1B (Shallow)	T/Plastic	103.81	102.94	5.30	98.51	1.65	102.16	7.30	96.51
MW#2A (Deep)	T/Plastic	104.64	103.77	9.37	95.27	2.30	102.34	8.10	96.54
MW#2B (Shallow)	T/Plastic	104.64	103.77	9.80	94.84	4.08	100.56	8.25	96.39
MW#3A (Deep)	T/Plastic	100.54	100.16	8.13	92.41	1.13	99.41	6.83	93.71
MW#3B (Shallow)	T/Plastic	100.50	100.16	8.05	92.45	1.05	99.45	6.73	93.77

Monitoring	Reference	Top of Pipe	Ground	May-21		Sep-21		Apr-22	
Well	Mark	Elevation	Elevation	Static	Elevation	Static	Elevation	Static	Elevation
MW#1A (Deep)	T/Plastic	103.79	102.94	0.95	102.84	8.42	95.37	1.54	102.25
MW#1B (Shallow)	T/Plastic	103.81	102.94	0.98	102.83	8.34	95.47	1.57	102.24
MW#2A (Deep)	T/Plastic	104.64	103.77	1.56	103.08	9.30	95.34	2.23	102.41
MW#2B (Shallow)	T/Plastic	104.64	103.77	3.75	100.89	9.06	95.58	4.07	100.57
MW#3A (Deep)	T/Plastic	100.54	100.16	0.25	100.29	8.06	92.48	1.19	99.35
MW#3B (Shallow)	T/Plastic	100.50	100.16	0.18	100.32	8.00	92.50	1.14	99.36

**Table 1 - Almonte Sewage Lagoons
Groundwater Level Data**

Monitoring	Reference	Top of Pipe	Ground	Sep-22		Jun-23		Oct-23	
Well	Mark	Elevation	Elevation	Static	Elevation	Static	Elevation	Static	Elevation
MW#1A (Deep)	T/Plastic	103.79	102.94	4.95	98.84	3.54	100.26	5.96	97.83
MW#1B (Shallow)	T/Plastic	103.81	102.94	4.96	98.85	3.53	100.28	5.95	97.86
MW#2A (Deep)	T/Plastic	104.64	103.77	5.72	98.92	4.31	100.33	6.81	97.83
MW#2B (Shallow)	T/Plastic	104.64	103.77	6.45	98.19	5.35	99.29	7.23	97.41
MW#3A (Deep)	T/Plastic	100.54	100.16	4.56	95.98	3.15	97.39	5.65	94.89
MW#3B (Shallow)	T/Plastic	100.50	100.16	4.38	96.12	3.08	97.42	5.58	94.92

Monitoring	Reference	Top of Pipe	Ground	Apr-24		Oct-24		Apr-25	
Well	Mark	Elevation	Elevation	Static	Elevation	Static	Elevation	Static	Elevation
MW#1A (Deep)	T/Plastic	103.79	102.94	0.66	103.13	5.05	98.74	0.66	103.13
MW#1B (Shallow)	T/Plastic	103.81	102.94	0.13	103.68	5.11	98.70	0.23	103.58
MW#2A (Deep)	T/Plastic	104.64	103.77	0.49	104.15	6.78	97.86	3.02	101.62
MW#2B (Shallow)	T/Plastic	104.64	103.77	2.24	102.40	7.24	97.40	1.52	103.12
MW#3A (Deep)	T/Plastic	100.54	100.16	above T/P	--	4.82	95.72	above T/P	--
MW#3B (Shallow)	T/Plastic	100.50	100.16	above T/P	--	4.84	95.66	above T/P	--

Monitoring	Reference	Top of Pipe	Ground	Oct-25					
Well	Mark	Elevation*	Elevation*	Static	Elevation				
MW#1A (Deep)	T/Plastic	127.17	126.25	8.36	118.81				
MW#1B (Shallow)	T/Plastic	127.20	126.25	8.39	118.81				
MW#2A (Deep)	T/Plastic	128.73	127.20	9.98	118.75				
MW#2B (Shallow)	T/Plastic	128.74	127.20	9.73	119.01				
MW#3A (Deep)	T/Plastic	127.62	126.49	8.89	118.73				
MW#3B (Shallow)	T/Plastic	127.72	126.49	9.03	118.69				

Note:

*Resurveyd in December 2025 - Referenced to geodetic datum NAD 83.

Table 2 - Mississippi Mills Sewage Lagoon

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW1A (Deep)			
							Jun-17	Aug-17	Aug-18	Dec-18
							No Sample	No Sample		
Alkalinity	306	336.6	NV	mg/l	30-500	271 - 410	--	--	335	340
Ammonia Total	0.12	0.132	NV	mg/l	--	<0.01 - 0.26	--	--	0.02	0.12
Chloride	102	112.2	176	mg/l	250	81 - 178	--	--	159	140
Nitrate	1	1.1	3.25	mg/l	10	<0.05 - 1.20	--	--	< 0.05	0.06
Nitrite	0.05	0.055	0.29	mg/l	1	0.01 - <0.05	--	--	< 0.05	< 0.05
pH	8.3	9.13	NV	pH units	6.5-8.5	6.9 - 8.06	--	--	7.77	7.76
Total Dissolved Solids	507	557.7	NV	mg/l	500	444 - 693*	--	--	693	596
Phosphorus	0.5	0.55	NV	mg/l	--	<0.01 - 0.54	--	--	0.21	0.16
o-Phosphate	1.2	1.32	NV	mg/l	--	<0.01 - 0.13	--	--	< 0.01	0.13
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	--	<0.1 - 0.8	--	--	0.5	0.4
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - 31	--	--	0	0
E Coli	1	1.1	<1	cfu/100mL	0	0	--	--	0	0
Field Measurements										
Temp	--	--	--	Deg C	--	8.6 - 11.9*	--	--	9.7	8.6
pH	--	--	--	pH Units	6.5 - 8.5	4.0 - 7.6*	--	--	7.3	7.3
Conductivity	--	--	--	Us/cm	--	416 - 1196*	--	--	848	538

 exceeds ODWS

 exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW1A (Deep)				May-21
							May-19	Sep-19	May-20	Sep-20	
Alkalinity	306	336.6	NV	mg/l	30-500	271 - 410	271	331	277	322	280
Ammonia Total	0.12	0.132	NV	mg/l	--	<0.01 - 0.26	0.02	0.15	< 0.01	0.14	< 0.01
Chloride	102	112.2	176	mg/l	250	81 - 178	92.8	98.3	85.4	132	94.4
Nitrate	1	1.1	3.25	mg/l	10	<0.05 - 1.20	0.49	< 0.05	0.53	< 0.05	0.61
Nitrite	0.05	0.055	0.29	mg/l	1	0.01 - <0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
pH	8.3	9.13	NV	pH units	6.5-8.5	6.9 - 8.06	7.91	7.77	8.03	7.88	8.06
Total Dissolved Solids	507	557.7	NV	mg/l	500	444 - 693*	469	579	445	590	444
Phosphorus	0.5	0.55	NV	mg/l	--	<0.01 - 0.54	0.01	< 0.01	< 0.01	0.01	0.05
o-Phosphate	1.2	1.32	NV	mg/l	--	<0.01 - 0.13	0.008	< 0.002	0.002	0.004	< 0.002
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	--	<0.1 - 0.8	< 0.1	0.3	< 0.01	0.3	0.1
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - 31	0	0	0	0	0
E Coli	1	1.1	<1	cfu/100mL	0	0	0	0	0	0	0
Field Measurements											
Temp	--	--	--	Deg C	--	8.6 - 11.9*	9.3	11.3	11.9	9.3	10.5
pH	--	--	--	pH Units	6.5 - 8.5	4.0 - 7.6*	7.5	7.6	4.0	7.6	7.1
Conductivity	--	--	--	Us/cm	--	416 - 1196*	416	1060	525	1065	915



exceeds ODWS



exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW1A (Deep)			MW1A (Deep)			
							Sep-21	Apr-22	Sep-22	Jun-23	Oct-23	Apr-24	Oct-24
Alkalinity	306	336.6	NV	mg/l	30-500	271 - 410	374	303	354	339	352	309	397
Ammonia Total	0.12	0.132	NV	mg/l	--	<0.01 - 0.26	0.14	<0.01	0.01	<0.01	0.07	<0.05	<0.05
Chloride	102	112.2	176	mg/l	250	81 - 178	143	109	113	95.8	119	102	78.7
Nitrate	1	1.1	3.25	mg/l	10	<0.05 - 1.20	<0.05	0.55	<0.05	0.20	<0.05	0.11	<0.05
Nitrite	0.05	0.055	0.29	mg/l	1	0.01 - <0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
pH	8.3	9.13	NV	pH units	6.5-8.5	6.9 - 8.06	7.83	7.79	7.75	7.81	8.06	7.84	8.09
Total Dissolved Solids	507	557.7	NV	mg/l	500	444 - 693*	619	538	557	488	557	510	526
Phosphorus	0.5	0.55	NV	mg/l	--	<0.01 - 0.54	0.01	<0.01	0.01	0.08	0.05	0.03	0.06
o-Phosphate	1.2	1.32	NV	mg/l	--	<0.01 - 0.13	<0.002	0.005	<0.002	<0.002	0.008	0.006	0.009
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	--	<0.1 - 0.8	0.5	0.1	0.2	0.2	0.3	0.2	0.4
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - 31	0	--	0	0	31	4	4
E Coli	1	1.1	<1	cfu/100mL	0	0	0	--	0	0	8	0	0
Field Measurements													
Temp	--	--	--	Deg C	--	8.6 - 11.9*	10.2	9.5	10.5	10.5	10.1	9.6	9.9
pH	--	--	--	pH Units	6.5 - 8.5	4.0 - 7.6*	7.1	7.5	7.5	7.27	7.27	6.99	7.38
Conductivity	--	--	--	Us/cm	--	416 - 1196*	1109	950	1040	1196	1008	1004	913

 exceeds ODWS

 exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW1A (Deep)			
							Apr-25	Oct-25		
Alkalinity	306	336.6	NV	mg/l	30-500	271 - 410	320	363		
Ammonia Total	0.12	0.132	NV	mg/l	--	<0.01 - 0.26	0.07	0.05		
Chloride	102	112.2	176	mg/l	250	81 - 178	115	137		
Nitrate	1	1.1	3.25	mg/l	10	<0.05 - 1.20	0.37	<0.05		
Nitrite	0.05	0.055	0.29	mg/l	1	0.01 - <0.05	<0.05	<0.05		
pH	8.3	9.13	NV	pH units	6.5-8.5	6.9 - 8.06	7.84	7.83		
Total Dissolved Solids	507	557.7	NV	mg/l	500	444 - 693*	531	633		
Phosphorus	0.5	0.55	NV	mg/l	--	<0.01 - 0.54	0.07	0.04		
o-Phosphate	1.2	1.32	NV	mg/l	--	<0.01 - 0.13	0.002	<0.002		
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	--	<0.1 - 0.8	0.3	0.3		
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - 31	0	<2		
E Coli	1	1.1	<1	cfu/100mL	0	0	0	0		
Field Measurements										
Temp	--	--	--	Deg C	--	8.6 - 11.9*	8.4	9.8		
pH	--	--	--	pH Units	6.5 - 8.5	4.0 - 7.6*	7.11	7.43		
Conductivity	--	--	--	Us/cm	--	416 - 1196*	857	1367		

 exceeds ODWS

 exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

17-6282I

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW1B (Shallow)			
							Jun-17	Aug-17	Aug-18	Dec-18
Alkalinity	306	336.6	NV	mg/l	30-500	311 - 720	325	329	311	319
Ammonia Total	0.12	0.132	NV	mg/l	--	<0.002 - 0.22	0.04	< 0.01	0.13	0.12
Chloride	102	112.2	176	mg/l	250	110 - 280	110	111	123	118
Nitrate	1	1.1	3.25	mg/l	10	<0.01 - 0.27	0.27	0.09	< 0.05	0.05
Nitrite	0.05	0.055	0.29	mg/l	1	<0.5 - 0.1	< 0.05	< 0.05	< 0.05	0.1
pH	8.3	9.13	NV	pH units	6.5-8.5	6.84 - 8.1	7.92	7.84	7.82	7.84
Total Dissolved Solids	507	557.7	NV	mg/l	500	527 - 1060*	1060	568	562	532
Phosphorus	0.5	0.55	NV	mg/l	--	0.02 - 0.39	0.02	0.07	0.08	0.1
o-Phosphate	1.2	1.32	NV	mg/l	--	<0.002 - 0.35	< 0.01	< 0.01	< 0.01	0.1
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	--	<0.1 - 1.1	0.17	0.2	0.3	0.2
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - 600	< 10	0	> 200	NDOGT
E Coli	1	1.1	<1	cfu/100mL	0	0 - 38	< 2	0	38	NDOGT
Field Measurements										
Temp	--	--	--	Deg C	--	8.4 - 12.5*	10.0	9.5	10	8.9
pH	--	--	--	pH Units	6.5 - 8.5	5.0 - 8.3*	7.5	7.2	7.4	7.6
Conductivity	--	--	--	Us/cm	--	450 - 1301*	1007	1060	728	510

 exceeds ODWS

 exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

17-6282I

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW1B (Shallow)			
							May-19	Sep-19	May-20	Sep-20
Alkalinity	306	336.6	NV	mg/l	30-500	311 - 720	340	351	317	353
Ammonia Total	0.12	0.132	NV	mg/l	--	<0.002 - 0.22	0.13	0.04	0.06	0.06
Chloride	102	112.2	176	mg/l	250	110 - 280	124	118	118	157
Nitrate	1	1.1	3.25	mg/l	10	<0.01 - 0.27	0.24	< 0.05	0.11	< 0.05
Nitrite	0.05	0.055	0.29	mg/l	1	<0.5 - 0.1	< 0.05	< 0.05	< 0.05	< 0.05
pH	8.3	9.13	NV	pH units	6.5-8.5	6.84 - 8.1	7.9	7.7	7.98	7.84
Total Dissolved Solids	507	557.7	NV	mg/l	500	527 - 1060*	568	676	546	683
Phosphorus	0.5	0.55	NV	mg/l	--	0.02 - 0.39	0.05	0.15	< 0.01	0.03
o-Phosphate	1.2	1.32	NV	mg/l	--	<0.002 - 0.35	0.033	0.007	< 0.002	0.004
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	--	<0.1 - 1.1	0.2	0.4	0.2	0.4
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - 600	0	0	0	0
E Coli	1	1.1	<1	cfu/100mL	0	0 - 38	0	0	0	0
Field Measurements										
Temp	--	--	--	Deg C	--	8.4 - 12.5*	9.3	12.5	9.2	9.9
pH	--	--	--	pH Units	6.5 - 8.5	5.0 - 8.3*	7.6	7.6	5.0	8.3
Conductivity	--	--	--	Us/cm	--	450 - 1301*	450	1208	1113	1195

 exceeds ODWS

 exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

17-62821

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW1B (Shallow)			
							May-21	Sep-21	Apr-22	Sep-22
Alkalinity	306	336.6	NV	mg/l	30-500	311 - 720	309	389	354	373
Ammonia Total	0.12	0.132	NV	mg/l	--	<0.002 - 0.22	< 0.01	<0.01	0.05	<0.01
Chloride	102	112.2	176	mg/l	250	110 - 280	123	157	136	139
Nitrate	1	1.1	3.25	mg/l	10	<0.01 - 0.27	< 0.05	<0.05	0.06	<0.05
Nitrite	0.05	0.055	0.29	mg/l	1	<0.5 - 0.1	< 0.05	<0.05	<0.05	<0.05
pH	8.3	9.13	NV	pH units	6.5-8.5	6.84 - 8.1	8.1	7.88	7.67	7.76
Total Dissolved Solids	507	557.7	NV	mg/l	500	527 - 1060*	527	670	628	611
Phosphorus	0.5	0.55	NV	mg/l	--	0.02 - 0.39	0.08	0.08	0.04	0.04
o-Phosphate	1.2	1.32	NV	mg/l	--	<0.002 - 0.35	< 0.002	<0.002	0.004	<0.002
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	--	<0.1 - 1.1	0.3	0.6	0.3	0.4
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - 600	0	0	--	0
E Coli	1	1.1	<1	cfu/100mL	0	0 - 38	0	0	--	0
Field Measurements										
Temp	--	--	--	Deg C	--	8.4 - 12.5*	10.6	9.8	8.4	10.5
pH	--	--	--	pH Units	6.5 - 8.5	5.0 - 8.3*	7.1	7.2	7.4	7.7
Conductivity	--	--	--	Us/cm	--	450 - 1301*	1054	1221	1009	1160

 exceeds ODWS

 exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

17-6282I

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW1B (Shallow)			
							Jun-23	Oct-23	Apr-24	Oct-24
Alkalinity	306	336.6	NV	mg/l	30-500	311 - 720	338	358	310	340
Ammonia Total	0.12	0.132	NV	mg/l	--	<0.002 - 0.22	<0.01	<0.05	<0.05	<0.05
Chloride	102	112.2	176	mg/l	250	110 - 280	123	133	104	113
Nitrate	1	1.1	3.25	mg/l	10	<0.01 - 0.27	0.17	<0.05	0.12	0.12
Nitrite	0.05	0.055	0.29	mg/l	1	<0.5 - 0.1	<0.05	<0.05	<0.05	<0.05
pH	8.3	9.13	NV	pH units	6.5-8.5	6.84 - 8.1	7.79	7.91	7.79	8.04
Total Dissolved Solids	507	557.7	NV	mg/l	500	527 - 1060*	530	588	515	536
Phosphorus	0.5	0.55	NV	mg/l	--	0.02 - 0.39	0.04	0.05	0.03	0.04
o-Phosphate	1.2	1.32	NV	mg/l	--	<0.002 - 0.35	<0.002	0.006	0.005	<0.002
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	--	<0.1 - 1.1	0.2	0.3	0.2	0.2
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - 600	0	11	0	<2
E Coli	1	1.1	<1	cfu/100mL	0	0 - 38	0	0	0	0
Field Measurements										
Temp	--	--	--	Deg C	--	8.4 - 12.5*	10.4	10.1	9.8	10.2
pH	--	--	--	pH Units	6.5 - 8.5	5.0 - 8.3*	7.27	7.35	6.73	7.28
Conductivity	--	--	--	Us/cm	--	450 - 1301*	1301	1050	1026	933

 exceeds ODWS

 exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

17-6282I

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW1B (Shallow)			
							Apr-25	Oct-25		
Alkalinity	306	336.6	NV	mg/l	30-500	311 - 720	322	368		
Ammonia Total	0.12	0.132	NV	mg/l	--	<0.002 - 0.22	<0.05	0.5		
Chloride	102	112.2	176	mg/l	250	110 - 280	112	134		
Nitrate	1	1.1	3.25	mg/l	10	<0.01 - 0.27	0.37	<0.05		
Nitrite	0.05	0.055	0.29	mg/l	1	<0.5 - 0.1	<0.05	<0.05		
pH	8.3	9.13	NV	pH units	6.5-8.5	6.84 - 8.1	7.85	7.86		
Total Dissolved Solids	507	557.7	NV	mg/l	500	527 - 1060*	519	613		
Phosphorus	0.5	0.55	NV	mg/l	--	0.02 - 0.39	<0.01	0.38		
o-Phosphate	1.2	1.32	NV	mg/l	--	<0.002 - 0.35	<0.002	0.028		
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	--	<0.1 - 1.1	0.2	1.8		
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - 600	0	970		
E Coli	1	1.1	<1	cfu/100mL	0	0 - 38	0	0		
Field Measurements										
Temp	--	--	--	Deg C	--	8.4 - 12.5*	8.7	9.9		
pH	--	--	--	pH Units	6.5 - 8.5	5.0 - 8.3*	6.89	7.58		
Conductivity	--	--	--	Us/cm	--	450 - 1301*	852	1846		

 exceeds ODWS

 exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

17-6282I

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW2A (Deep)			
							Jun-17	Aug-17	Aug-18	Dec-18
Alkalinity	306	336.6	NV	mg/l	30-500	255- 405	265	269	274	284
Ammonia Total	0.12	0.132	NV	mg/l	--	<0.01 - 0.24	< 0.01	< 0.01	< 0.01	0.01
Chloride	102	112.2	176	mg/l	250	68 - 181	107	99.4	131	136
Nitrate	1	1.1	3.25	mg/l	10	<0.01 - 1.9	1.38	1.32	1.12	1.17
Nitrite	0.05	0.055	0.29	mg/l	1	<0.05 - 0.19	< 0.05	< 0.05	< 0.05	0.06
pH	8.3	9.13	NV	pH units	6.5-8.5	7.04 - 8.10	7.95	7.94	7.87	7.85
Total Dissolved Solids	507	557.7	NV	mg/l	500	437 - 928*	509	928	539	539
Phosphorus	0.5	0.55	NV	mg/l	--	0.02 - 4.29	0.09	0.02	2.41	0.1
o-Phosphate	1.2	1.32	NV	mg/l	--	<0.002 - 0.5	0.01	< 0.01	< 0.01	0.1
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	--	<0.1 - 0.8	0.12	< 0.1	0.2	0.1
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - <10	< 10	2	0	0
E Coli	1	1.1	<1	cfu/100mL	0	0 - <2	< 2	0	0	0
Field Measurements										
Temp	--	--	--	Deg C	--	8.5 - 11.2*	10.0	9.8	9.9	8.9
pH	--	--	--	pH Units	6.5 - 8.5	7 - 7.8*	7.2	7	7.4	7.4
Conductivity	--	--	--	Us/cm	--	419 - 1055*	934	928	695	605



exceeds ODWS



exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

17-6282I

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW2A (Deep)			
							May-19	Sep-19	May-20	Sep-20
Alkalinity	306	336.6	NV	mg/l	30-500	255- 405	255	274	256	269
Ammonia Total	0.12	0.132	NV	mg/l	--	<0.01 - 0.24	< 0.01	0.01	< 0.01	0.04
Chloride	102	112.2	176	mg/l	250	68 - 181	104	82	92.5	104
Nitrate	1	1.1	3.25	mg/l	10	<0.01 - 1.9	0.94	0.95	0.15	1.27
Nitrite	0.05	0.055	0.29	mg/l	1	<0.05 - 0.19	< 0.05	< 0.05	< 0.05	< 0.05
pH	8.3	9.13	NV	pH units	6.5-8.5	7.04 - 8.10	7.95	7.87	8.02	7.94
Total Dissolved Solids	507	557.7	NV	mg/l	500	437 - 928*	470	478	437	475
Phosphorus	0.5	0.55	NV	mg/l	--	0.02 - 4.29	0.08	0.31	0.02	0.1
o-Phosphate	1.2	1.32	NV	mg/l	--	<0.002 - 0.5	0.067	0.017	0.003	0.033
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	--	<0.1 - 0.8	< 0.1	0.2	< 0.1	0.2
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - <10	0	0	0	0
E Coli	1	1.1	<1	cfu/100mL	0	0 - <2	0	0	0	0
Field Measurements										
Temp	--	--	--	Deg C	--	8.5 - 11.2*	9.2	11.2	9.6	9.5
pH	--	--	--	pH Units	6.5 - 8.5	7 - 7.8*	7.5	7.8	7.1	7.6
Conductivity	--	--	--	Us/cm	--	419 - 1055*	419	886	582	850



exceeds ODWS



exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

17-6282I

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW2A (Deep)			
							May-21	Sep-21	Apr-22	Sep-22
Alkalinity	306	336.6	NV	mg/l	30-500	255- 405	270	300	278	299
Ammonia Total	0.12	0.132	NV	mg/l	--	<0.01 - 0.24	< 0.01	<0.01	<0.01	<0.01
Chloride	102	112.2	176	mg/l	250	68 - 181	98.8	122	92.7	121
Nitrate	1	1.1	3.25	mg/l	10	<0.01 - 1.9	1.69	1.25	1.84	0.05
Nitrite	0.05	0.055	0.29	mg/l	1	<0.05 - 0.19	< 0.05	<0.05	<0.05	<0.05
pH	8.3	9.13	NV	pH units	6.5-8.5	7.04 - 8.10	8.1	7.90	7.65	7.87
Total Dissolved Solids	507	557.7	NV	mg/l	500	437 - 928*	445	501	470	514
Phosphorus	0.5	0.55	NV	mg/l	--	0.02 - 4.29	4.29	0.19	0.25	0.07
o-Phosphate	1.2	1.32	NV	mg/l	--	<0.002 - 0.5	< 0.002	<0.002	0.012	<0.002
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	--	<0.1 - 0.8	0.4	0.3	0.1	0.2
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - <10	0	0	--	0
E Coli	1	1.1	<1	cfu/100mL	0	0 - <2	0	0	--	0
Field Measurements										
Temp	--	--	--	Deg C	--	8.5 - 11.2*	9.8	9.9	8.5	9.8
pH	--	--	--	pH Units	6.5 - 8.5	7 - 7.8*	7	7.2	7.5	7.4
Conductivity	--	--	--	Us/cm	--	419 - 1055*	895	908	840	970



exceeds ODWS



exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

17-6282I

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW2A (Deep)			
							Jun-23	Oct-23	Apr-24	Oct-24
Alkalinity	306	336.6	NV	mg/l	30-500	255- 405	279	310	292	317
Ammonia Total	0.12	0.132	NV	mg/l	--	<0.01 - 0.24	<0.01	<0.05	<0.05	<0.05
Chloride	102	112.2	176	mg/l	250	68 - 181	108	106	98.8	96.4
Nitrate	1	1.1	3.25	mg/l	10	<0.01 - 1.9	1.61	1.88	1.43	1.82
Nitrite	0.05	0.055	0.29	mg/l	1	<0.05 - 0.19	<0.05	<0.05	<0.05	<0.05
pH	8.3	9.13	NV	pH units	6.5-8.5	7.04 - 8.10	7.83	7.91	7.82	8.01
Total Dissolved Solids	507	557.7	NV	mg/l	500	437 - 928*	458	496	489	501
Phosphorus	0.5	0.55	NV	mg/l	--	0.02 - 4.29	0.05	0.08	0.05	0.06
o-Phosphate	1.2	1.32	NV	mg/l	--	<0.002 - 0.5	0.019	0.008	0.007	<0.002
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	--	<0.1 - 0.8	0.1	0.1	0.2	0.2
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - <10	3	0	0	0
E Coli	1	1.1	<1	cfu/100mL	0	0 - <2	0	0	0	0
Field Measurements										
Temp	--	--	--	Deg C	--	8.5 - 11.2*	10.0	10.1	10.7	9.4
pH	--	--	--	pH Units	6.5 - 8.5	7 - 7.8*	7.38	7.35	6.84	7.42
Conductivity	--	--	--	Us/cm	--	419 - 1055*	1055	898	969	865



exceeds ODWS



exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

17-6282I

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW2A (Deep)			
							Apr-25	Oct-25		
Alkalinity	306	336.6	NV	mg/l	30-500	255- 405	296	294		
Ammonia Total	0.12	0.132	NV	mg/l	--	<0.01 - 0.24	<0.05	<0.05		
Chloride	102	112.2	176	mg/l	250	68 - 181	104	124		
Nitrate	1	1.1	3.25	mg/l	10	<0.01 - 1.9	1.73	1.47		
Nitrite	0.05	0.055	0.29	mg/l	1	<0.05 - 0.19	<0.05	<0.05		
pH	8.3	9.13	NV	pH units	6.5-8.5	7.04 - 8.10	7.9	7.87		
Total Dissolved Solids	507	557.7	NV	mg/l	500	437 - 928*	491	524		
Phosphorus	0.5	0.55	NV	mg/l	--	0.02 - 4.29	0.04	0.04		
o-Phosphate	1.2	1.32	NV	mg/l	--	<0.002 - 0.5	0.005	0.013		
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	--	<0.1 - 0.8	0.2	0.1		
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - <10	1	0		
E Coli	1	1.1	<1	cfu/100mL	0	0 - <2	0	0		
Field Measurements										
Temp	--	--	--	Deg C	--	8.5 - 11.2*	7.9	9.7		
pH	--	--	--	pH Units	6.5 - 8.5	7 - 7.8*	7.79	7.43		
Conductivity	--	--	--	Us/cm	--	419 - 1055*	873	1113		

 exceeds ODWS

 exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

17-62821

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW2B (Shallow)			
							Jun-17	Aug-17	Aug-18	Dec-18
Alkalinity	306	336.6	NV	mg/l	30-500	264 - 511	274	288	389	406
Ammonia Total	0.12	0.132	NV	mg/l	--	<0.002 - 0.2	< 0.01	< 0.01	< 0.01	0.01
Chloride	102	112.2	176	mg/l	250	69 - 288	77.4	89.9	204	174
Nitrate	1	1.1	3.25	mg/l	10	0.01 - 4.6	0.74	0.47	0.15	0.09
Nitrite	0.05	0.055	0.29	mg/l	1	0.01 - 0.4	< 0.05	< 0.05	< 0.05	0.06
pH	8.3	9.13	NV	pH units	6.5-8.5	6.72 - 8.14	7.96	7.89	7.66	7.72
Total Dissolved Solids	507	557.7	NV	mg/l	500	416 - 863*	454	506	863	755
Phosphorus	0.5	0.55	NV	mg/l	--	<0.01 - 0.35	< 0.01	< 0.01	< 0.01	0.01
o-Phosphate	1.2	1.32	NV	mg/l	--	<0.002 - 0.25	< 0.01	< 0.01	< 0.01	0.01
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	--	<0.1 - 0.7	< 0.05	< 0.1	0.3	0.2
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - 3100	< 10	0	0	1
E Coli	1	1.1	<1	cfu/100mL	0	0 - 200	< 2	0	0	0
Field Measurements										
Temp	--	--	--	Deg C	--	8.5 - 11.1*	10.5	9.5	9.8	8.5
pH	--	--	--	pH Units	6.5 - 8.5	6 - 7.6*	7.2	7.3	7.2	7.2
Conductivity	--	--	--	Us/cm	--	435 - 1518*	807	952	993	605

 exceeds ODWS

 exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

17-62821

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW2B (Shallow)				
							May-19	Sep-19	May-20	Sep-20	
											Dup
Alkalinity	306	336.6	NV	mg/l	30-500	264 - 511	279	413	264	424	417
Ammonia Total	0.12	0.132	NV	mg/l	--	<0.002 - 0.2	0.04	0.02	< 0.01	0.01	0.01
Chloride	102	112.2	176	mg/l	250	69 - 288	94.3	146	75.9	182	181
Nitrate	1	1.1	3.25	mg/l	10	0.01 - 4.6	0.49	0.19	0.57	< 0.05	< 0.05
Nitrite	0.05	0.055	0.29	mg/l	1	0.01 - 0.4	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
pH	8.3	9.13	NV	pH units	6.5-8.5	6.72 -8.14	7.88	7.62	8.06	7.76	7.77
Total Dissolved Solids	507	557.7	NV	mg/l	500	416 - 863*	481	857	416	829	829
Phosphorus	0.5	0.55	NV	mg/l	--	<0.01 - 0.35	0.01	0.01	< 0.01	0.01	0.01
o-Phosphate	1.2	1.32	NV	mg/l	--	<0.002 - 0.25	0.009	0.002	< 0.002	0.004	0.003
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	--	<0.1 - 0.7	0.1	0.3	< 0.1	0.3	0.3
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - 3100	0	0	0	0	0
E Coli	1	1.1	<1	cfu/100mL	0	0 - 200	0	0	0	0	0
Field Measurements											
Temp	--	--	--	Deg C	--	8.5 - 11.1*	8.9	11.1	10.2	10.2	
pH	--	--	--	pH Units	6.5 - 8.5	6 - 7.6*	7.3	7.6	6	7.2	
Conductivity	--	--	--	Us/cm	--	435 - 1518*	435	1518	890	1396	

 exceeds ODWS

 exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

17-62821

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW2B (Shallow)			
							May-21	Sep-21	Apr-22	Sep-22
Alkalinity	306	336.6	NV	mg/l	30-500	264 - 511	283	468	364	439
Ammonia Total	0.12	0.132	NV	mg/l	--	<0.002 - 0.2	< 0.01	0.01	<0.01	<0.01
Chloride	102	112.2	176	mg/l	250	69 - 288	82.9	202	135	165
Nitrate	1	1.1	3.25	mg/l	10	0.01 - 4.6	0.74	0.05	0.21	<0.05
Nitrite	0.05	0.055	0.29	mg/l	1	0.01 - 0.4	< 0.05	<0.05	<0.05	<0.05
pH	8.3	9.13	NV	pH units	6.5-8.5	6.72 -8.14	8.14	7.73	7.58	7.54
Total Dissolved Solids	507	557.7	NV	mg/l	500	416 - 863*	422	846	661	769
Phosphorus	0.5	0.55	NV	mg/l	--	<0.01 - 0.35	0.03	0.01	<0.01	0.03
o-Phosphate	1.2	1.32	NV	mg/l	--	<0.002 - 0.25	< 0.002	<0.002	0.007	<0.002
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	--	<0.1 - 0.7	0.2	0.3	0.1	0.3
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - 3100	0	0	--	0
E Coli	1	1.1	<1	cfu/100mL	0	0 - 200	0	0	--	0
Field Measurements										
Temp	--	--	--	Deg C	--	8.5 - 11.1*	9.5	9.4	8.4	9.9
pH	--	--	--	pH Units	6.5 - 8.5	6 - 7.6*	6.9	6.9	7.4	7.3
Conductivity	--	--	--	Us/cm	--	435 - 1518*	856	1477	1113	1420



exceeds ODWS



exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

17-62821

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW2B (Shallow)			
							Jun-23	Oct-23	Apr-24	Oct-24
Alkalinity	306	336.6	NV	mg/l	30-500	264 - 511	294	382	288	346
Ammonia Total	0.12	0.132	NV	mg/l	--	<0.002 - 0.2	<0.01	<0.05	<0.05	<0.05
Chloride	102	112.2	176	mg/l	250	69 - 288	87.7	150	83.2	100
Nitrate	1	1.1	3.25	mg/l	10	0.01 - 4.6	0.78	1.05	0.65	0.14
Nitrite	0.05	0.055	0.29	mg/l	1	0.01 - 0.4	<0.05	<0.40	<0.05	<0.05
pH	8.3	9.13	NV	pH units	6.5-8.5	6.72 - 8.14	7.86	7.98	7.85	8.05
Total Dissolved Solids	507	557.7	NV	mg/l	500	416 - 863*	434	710	453	525
Phosphorus	0.5	0.55	NV	mg/l	--	<0.01 - 0.35	<0.01	<0.01	0.03	0.01
o-Phosphate	1.2	1.32	NV	mg/l	--	<0.002 - 0.25	<0.002	0.003	0.003	<0.002
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	--	<0.1 - 0.7	0.1	0.2	0.2	0.1
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - 3100	10	1	0	0
E Coli	1	1.1	<1	cfu/100mL	0	0 - 200	0	0	0	0
Field Measurements										
Temp	--	--	--	Deg C	--	8.5 - 11.1*	10.8	10.1	11.8	10
pH	--	--	--	pH Units	6.5 - 8.5	6 - 7.6*	7.43	7.23	6.82	7.36
Conductivity	--	--	--	Us/cm	--	435 - 1518*	1120	1258	914	928

 exceeds ODWS

 exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

17-62821

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW2B (Shallow)			
							Apr-25	Oct-25		
Alkalinity	306	336.6	NV	mg/l	30-500	264 - 511	283	452		
Ammonia Total	0.12	0.132	NV	mg/l	--	<0.002 - 0.2	<0.05	<0.05		
Chloride	102	112.2	176	mg/l	250	69 - 288	92	143		
Nitrate	1	1.1	3.25	mg/l	10	0.01 - 4.6	0.63	<0.05		
Nitrite	0.05	0.055	0.29	mg/l	1	0.01 - 0.4	<0.05	<0.05		
pH	8.3	9.13	NV	pH units	6.5-8.5	6.72 - 8.14	8.2	7.69		
Total Dissolved Solids	507	557.7	NV	mg/l	500	416 - 863*	464	759		
Phosphorus	0.5	0.55	NV	mg/l	--	<0.01 - 0.35	0.01	0.01		
o-Phosphate	1.2	1.32	NV	mg/l	--	<0.002 - 0.25	<0.002	0.004		
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	--	<0.1 - 0.7	0.2	0.3		
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - 3100	1	0		
E Coli	1	1.1	<1	cfu/100mL	0	0 - 200	0	0		
Field Measurements										
Temp	--	--	--	Deg C	--	8.5 - 11.1*	5.9	9.2		
pH	--	--	--	pH Units	6.5 - 8.5	6 - 7.6*	7.32	7.16		
Conductivity	--	--	--	Us/cm	--	435 - 1518*	792	1551		

 exceeds ODWS

 exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW3A (Deep)			
							Jun-17		Aug-17	
								Dup		Dup
Alkalinity	306	336.6	NV	mg/l	30-500	260 - 317	273	269	272	271
Ammonia Total	0.12	0.132	NV	mg/l	-	<0.002 - 0.09	< 0.01	< 0.01	< 0.01	< 0.01
Chloride	102	112.2	176	mg/l	250	68 - 175	115	116	109	110
Nitrate	1	1.1	3.25	mg/l	10	<0.01 - 1.6	1.07	1.04	0.95	0.97
Nitrite	0.05	0.055	0.29	mg/l	1	0.03 - 0.05	< 0.05	< 0.05	< 0.05	< 0.05
pH	8.3	9.13	NV	pH units	6.5-8.5	6.95 - 8.31	7.91	7.97	7.85	7.89
Total Dissolved Solids	507	557.7	NV	mg/l	500	456 - 532*	533	527	519	521
Phosphorus	0.5	0.55	NV	mg/l	-	<0.01 - 0.39	< 0.01	< 0.01	< 0.01	< 0.01
o-Phosphate	1.2	1.32	NV	mg/l	-	<0.002 - 0.05	< 0.01	< 0.01	< 0.01	< 0.01
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	-	0.09 - 0.6	0.1	0.09	< 0.1	< 0.1
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - 160	< 10	< 10	0	0
E Coli	1	1.1	<1	cfu/100mL	0	0 - 1	< 2	< 2	0	0
Field Measurements										
Temp	-		-	Deg C	-	8.3 - 12.1*	9.2		10	
pH	-		-	pH Units	6.5 - 8.5	5.9 - 7.8*	7.3		6.5	
Conductivity	-		-	Us/cm	-	429 - 1171*	944		947	

 exceeds ODWS

 exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

17-62821

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW3A (Deep)			MW3A (Deep)			
							Aug-18		Dec-18	May-19		Sep-19	
								Dup			Dup		Dup
Alkalinity	306	336.6	NV	mg/l	30-500	260 - 317	272	269	313	263	265	272	276
Ammonia Total	0.12	0.132	NV	mg/l	-	<0.002 - 0.09	< 0.01	< 0.01	0.02	0.02	0.08	< 0.01	< 0.01
Chloride	102	112.2	176	mg/l	250	68 - 175	126	127	126	110	110	81.1	81.6
Nitrate	1	1.1	3.25	mg/l	10	<0.01 - 1.6	0.55	0.55	0.55	0.74	0.74	0.38	0.39
Nitrite	0.05	0.055	0.29	mg/l	1	0.03 - 0.05	< 0.05	< 0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05
pH	8.3	9.13	NV	pH units	6.5-8.5	6.95 - 8.31	7.91	7.89	7.89	7.96	8.01	7.85	7.85
Total Dissolved Solids	507	557.7	NV	mg/l	500	456 - 532*	523	532	532	496	491	480	480
Phosphorus	0.5	0.55	NV	mg/l	-	<0.01 - 0.39	< 0.01	< 0.01	< 0.01	0.01	0.04	< 0.01	< 0.01
o-Phosphate	1.2	1.32	NV	mg/l	-	<0.002 - 0.05	< 0.01	< 0.01	< 0.01	0.007	0.006	< 0.002	< 0.002
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	-	0.09 - 0.6	0.1	0.1	0.1	< 0.1	< 0.1	< 0.1	< 0.1
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - 160	0	0	0	0	0	0	0
E Coli	1	1.1	<1	cfu/100mL	0	0 - 1	0	0	0	0	0	0	0
Field Measurements													
Temp	-		-	Deg C	-	8.3 - 12.1*	9.8		8.4	8.3		10.5	
pH	-		-	pH Units	6.5 - 8.5	5.9 - 7.8*	7.5		7.4	7.3		7.7	
Conductivity	-		-	Us/cm	-	429 - 1171*	699		539	429		889	

 exceeds ODWS

 exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

17-62821

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW3A (Deep)			MW3A (Deep)		MW3A (Deep)		
							May-20		Sep-20	May-21	Sep-21	Apr-22		Sep-22
								Dup					Dup	
Alkalinity	306	336.6	NV	mg/l	30-500	260 - 317	267	264	274	281	302	282	286	296
Ammonia Total	0.12	0.132	NV	mg/l	-	<0.002 - 0.09	< 0.01	< 0.01	0.01	< 0.01	<0.01	<0.01	<0.01	<0.01
Chloride	102	112.2	176	mg/l	250	68 - 175	98.5	99.7	102	103	114	101	101	112
Nitrate	1	1.1	3.25	mg/l	10	<0.01 - 1.6	0.07	0.81	0.57	1.24	0.39	1.26	1.28	<0.05
Nitrite	0.05	0.055	0.29	mg/l	1	0.03 - 0.05	< 0.05	< 0.05	<0.05	< 0.05	<0.05	<0.05	<0.05	<0.05
pH	8.3	9.13	NV	pH units	6.5-8.5	6.95 - 8.31	8.19	8.31	7.91	8.18	7.99	7.95	8.02	7.9
Total Dissolved Solids	507	557.7	NV	mg/l	500	456 - 532*	464	459	474	456	498	498	494	496
Phosphorus	0.5	0.55	NV	mg/l	-	<0.01 - 0.39	< 0.01	< 0.01	< 0.01	0.04	0.03	<0.01	<0.01	0.05
o-Phosphate	1.2	1.32	NV	mg/l	-	<0.002 - 0.05	0.002	< 0.002	0.004	< 0.002	<0.002	0.008	0.006	<0.002
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	-	0.09 - 0.6	0.1	0.2	0.2	0.2	0.3	0.1	0.1	0.3
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - 160	0	0	0	0	0	--	--	0
E Coli	1	1.1	<1	cfu/100mL	0	0 - 1	0	0	0	0	0	--	--	0
Field Measurements														
Temp	-		-	Deg C	-	8.3 - 12.1*	9.9		9.6	9.8	12.1	9.6		9.7
pH	-		-	pH Units	6.5 - 8.5	5.9 - 7.8*	5.9		7.4	6.4	7.1	7.8		7.4
Conductivity	-		-	Us/cm	-	429 - 1171*	897		875	927	890	980		940

 exceeds ODWS

 exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

17-62821

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW3A (Deep)				MW3A (Deep)			
							Jun-23		Oct-23		May-24		Oct-24	
								Dup		Dup		Dup		Dup
Alkalinity	306	336.6	NV	mg/l	30-500	260 - 317	289	288	304	301	287	289	316	314
Ammonia Total	0.12	0.132	NV	mg/l	-	<0.002 - 0.09	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Chloride	102	112.2	176	mg/l	250	68 - 175	119	120	107	108	107	108	103	103
Nitrate	1	1.1	3.25	mg/l	10	<0.01 - 1.6	1.02	1.04	0.96	0.95	1.25	1.26	1.14	1.14
Nitrite	0.05	0.055	0.29	mg/l	1	0.03 - 0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
pH	8.3	9.13	NV	pH units	6.5-8.5	6.95 - 8.31	7.92	7.91	7.91	8.01	7.92	7.93	8.02	8.00
Total Dissolved Solids	507	557.7	NV	mg/l	500	456 - 532*	478	479	493	491	497	496	506	504
Phosphorus	0.5	0.55	NV	mg/l	-	<0.01 - 0.39	0.02	<0.01	0.01	<0.01	0.01	0.01	0.01	0.01
o-Phosphate	1.2	1.32	NV	mg/l	-	<0.002 - 0.05	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.003
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	-	0.09 - 0.6	0.1	0.2	0.1	<0.1	0.2	0.1	0.1	0.1
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - 160	16	--	0	0	0	0	0	0
E Coli	1	1.1	<1	cfu/100mL	0	0 - 1	0	--	0	0	0	0	0	0
Field Measurements														
Temp	-		-	Deg C	-	8.3 - 12.1*	11.1		10.2		10.1		9.4	
pH	-		-	pH Units	6.5 - 8.5	5.9 - 7.8*	7.45		7.51		8.17		7.48	
Conductivity	-		-	Us/cm	-	429 - 1171*	1171		883		983		878	

 exceeds ODWS

 exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW3A (Deep)			
							Apr-25		Oct-25	
								Dup		Dup
Alkalinity	306	336.6	NV	mg/l	30-500	260 - 317	280	305	297	298
Ammonia Total	0.12	0.132	NV	mg/l	-	<0.002 - 0.09	<0.05	<0.05	<0.05	<0.05
Chloride	102	112.2	176	mg/l	250	68 - 175	110	111	121	121
Nitrate	1	1.1	3.25	mg/l	10	<0.01 - 1.6	1.23	1.16	0.52	0.51
Nitrite	0.05	0.055	0.29	mg/l	1	0.03 - 0.05	<0.05	<0.05	<0.05	<0.05
pH	8.3	9.13	NV	pH units	6.5-8.5	6.95 - 8.31	8.13	8.05	7.97	8.03
Total Dissolved Solids	507	557.7	NV	mg/l	500	456 - 532*	504	508	518	519
Phosphorus	0.5	0.55	NV	mg/l	-	<0.01 - 0.39	<0.01	0.02	<0.01	0.02
o-Phosphate	1.2	1.32	NV	mg/l	-	<0.002 - 0.05	<0.002	0.004	0.002	0.002
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	-	0.09 - 0.6	0.2	0.2	0.1	0.2
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - 160	0	1	1	2
E Coli	1	1.1	<1	cfu/100mL	0	0 - 1	0	0	0	0
Field Measurements										
Temp	-		-	Deg C	-	8.3 - 12.1*	8.4		14.7	
pH	-		-	pH Units	6.5 - 8.5	5.9 - 7.8*	7.21		7.93	
Conductivity	-		-	Us/cm	-	429 - 1171*	832		1108	

 exceeds ODWS

 exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

17-62821

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW3B (Shallow)	
							Jun-17	Aug-17
Alkalinity	306	336.6	NV	mg/l	30-500	257 - 317	288	273
Ammonia Total	0.12	0.132	NV	mg/l	-	<0.002 - 0.06	< 0.01	< 0.01
Chloride	102	112.2	176	mg/l	250	74 - 179	105	98.1
Nitrate	1	1.1	3.25	mg/l	10	0.5 - 1.8	1.31	1.23
Nitrite	0.05	0.055	0.29	mg/l	1	0.01 - 0.11	< 0.05	< 0.01
pH	8.3	9.13	NV	pH units	6.5-8.5	7.3 - 8.11	7.93	7.84
Total Dissolved Solids	507	557.7	NV	mg/l	500	442 - 539*	502	488
Phosphorus	0.5	0.55	NV	mg/l	-	<0.01 - 0.75	< 0.01	< 0.01
o-Phosphate	1.2	1.32	NV	mg/l	-	<0.002 - 0.07	< 0.01	< 0.01
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	-	0.05 - 0.4	0.05	0.1
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - 13	< 10	0
E Coli	1	1.1	<1	cfu/100mL	0	0 - <2	< 2	0
Field Measurements								
Temp	-		-	Deg C	-	8.5 - 12.3*	10.0	9.8
pH	-		-	pH Units	6.5 - 8.5	6.7 - 8*	7.4	6.7
Conductivity	-		-	Us/cm	-	420 - 1134*	891	919



exceeds ODWS



exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

17-62821

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW3B (Shallow)				
							Aug-18	Dec-18		May-19	Sep-19
									Dup		
Alkalinity	306	336.6	NV	mg/l	30-500	257 - 317	270	296	295	257	270
Ammonia Total	0.12	0.132	NV	mg/l	-	<0.002 - 0.06	< 0.01	< 0.01	0.01	0.04	< 0.01
Chloride	102	112.2	176	mg/l	250	74 - 179	119	127	127	103	76.5
Nitrate	1	1.1	3.25	mg/l	10	0.5 - 1.8	0.83	0.84	0.83	0.89	0.67
Nitrite	0.05	0.055	0.29	mg/l	1	0.01 - 0.11	< 0.05	< 0.05	0.05	< 0.05	< 0.05
pH	8.3	9.13	NV	pH units	6.5-8.5	7.3 - 8.11	7.86	7.85	7.86	7.95	7.82
Total Dissolved Solids	507	557.7	NV	mg/l	500	442 - 539*	508	539	539	467	469
Phosphorus	0.5	0.55	NV	mg/l	-	<0.01 - 0.75	< 0.01	< 0.01	0.01	0.01	< 0.01
o-Phosphate	1.2	1.32	NV	mg/l	-	<0.002 - 0.07	< 0.01	< 0.01	< 0.01	0.006	0.002
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	-	0.05 - 0.4	0.1	0.1	0.1	< 0.1	<0.1
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - 13	0	0	0	0	0
E Coli	1	1.1	<1	cfu/100mL	0	0 - <2	0	0	0	0	0
Field Measurements											
Temp	-		-	Deg C	-	8.5 - 12.3*	10.2	8.5		8.8	11.1
pH	-		-	pH Units	6.5 - 8.5	6.7 - 8*	7.5	7.2		7.2	7.6
Conductivity	-		-	Us/cm	-	420 - 1134*	679	540		420	876

 exceeds ODWS

 exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

17-62821

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW3B (Shallow)					
							May-20	Sep-20	May-21		Sep-21	
										Dup		Dup
Alkalinity	306	336.6	NV	mg/l	30-500	257 - 317	262	271	272	266	304	304
Ammonia Total	0.12	0.132	NV	mg/l	-	<0.002 - 0.06	< 0.01	< 0.01	< 0.01	0.02	<0.01	<0.01
Chloride	102	112.2	176	mg/l	250	74 - 179	93.7	101	98.4	98.6	116	115
Nitrate	1	1.1	3.25	mg/l	10	0.5 - 1.8	1.1	0.88	1.59	1.51	0.75	0.70
Nitrite	0.05	0.055	0.29	mg/l	1	0.01 - 0.11	< 0.05	< 0.05	< 0.05	< 0.05	<0.05	<0.05
pH	8.3	9.13	NV	pH units	6.5-8.5	7.3 - 8.11	8.03	7.93	8.11	8.1	7.95	8.01
Total Dissolved Solids	507	557.7	NV	mg/l	500	442 - 539*	448	474	443	442	506	488
Phosphorus	0.5	0.55	NV	mg/l	-	<0.01 - 0.75	< 0.01	< 0.01	0.03	0.03	0.03	0.01
o-Phosphate	1.2	1.32	NV	mg/l	-	<0.002 - 0.07	0.003	0.002	< 0.002	< 0.002	<0.002	<0.002
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	-	0.05 - 0.4	< 0.1	0.2	0.1	0.3	0.4	0.3
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - 13	0	0	0	0	0	0
E Coli	1	1.1	<1	cfu/100mL	0	0 - <2	0	0	0	0	0	0
Field Measurements												
Temp	-		-	Deg C	-	8.5 - 12.3*	12.3	9.7	10		10	
pH	-		-	pH Units	6.5 - 8.5	6.7 - 8*	6.95	8	6.7		7.2	
Conductivity	-		-	Us/cm	-	420 - 1134*	965	868	897		910	

 exceeds ODWS

 exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

17-62821

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW3B (Shallow)						
							Apr-22	Sep-22		Jun-23	Oct-23	May-24	Oct-24
									Dup				
Alkalinity	306	336.6	NV	mg/l	30-500	257 - 317	284	298	295	286	307	298	325
Ammonia Total	0.12	0.132	NV	mg/l	-	<0.002 - 0.06	<0.01	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05
Chloride	102	112.2	176	mg/l	250	74 - 179	95.5	114	111	114	104	107	95.6
Nitrate	1	1.1	3.25	mg/l	10	0.5 - 1.8	1.65	0.06	<0.05	1.57	1.42	1.73	1.43
Nitrite	0.05	0.055	0.29	mg/l	1	0.01 - 0.11	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
pH	8.3	9.13	NV	pH units	6.5-8.5	7.3 - 8.11	7.66	7.81	7.91	7.87	7.97	7.93	8.03
Total Dissolved Solids	507	557.7	NV	mg/l	500	442 - 539*	478	496	501	464	487	506	498
Phosphorus	0.5	0.55	NV	mg/l	-	<0.01 - 0.75	0.02	0.02	0.02	<0.01	0.01	0.01	0.01
o-Phosphate	1.2	1.32	NV	mg/l	-	<0.002 - 0.07	0.003	<0.002	<0.002	<0.002	0.006	0.007	<0.002
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	-	0.05 - 0.4	0.1	0.2	0.3	0.1	0.1	0.1	0.1
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - 13	--	2	13	0	0	0	0
E Coli	1	1.1	<1	cfu/100mL	0	0 - <2	--	0	0	0	0	0	0
Field Measurements													
Temp	-		-	Deg C	-	8.5 - 12.3*	8.7	10.0		10.3	10.3	9.4	9.6
pH	-		-	pH Units	6.5 - 8.5	6.7 - 8*	7.7	7.4		7.62	7.47	8.12	7.53
Conductivity	-		-	Us/cm	-	420 - 1134*	860	910		1134	889	995	867

 exceeds ODWS

 exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

17-62821

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW3B (Shallow)			
							Apr-25	Oct-25		
Alkalinity	306	336.6	NV	mg/l	30-500	257 - 317	281	300		
Ammonia Total	0.12	0.132	NV	mg/l	-	<0.002 - 0.06	<0.05	<0.05		
Chloride	102	112.2	176	mg/l	250	74 - 179	108	121		
Nitrate	1	1.1	3.25	mg/l	10	0.5 - 1.8	1.57	0.87		
Nitrite	0.05	0.055	0.29	mg/l	1	0.01 - 0.11	<0.05	<0.05		
pH	8.3	9.13	NV	pH units	6.5-8.5	7.3 - 8.11	8	7.88		
Total Dissolved Solids	507	557.7	NV	mg/l	500	442 - 539*	502	524		
Phosphorus	0.5	0.55	NV	mg/l	-	<0.01 - 0.75	<0.01	0.01		
o-Phosphate	1.2	1.32	NV	mg/l	-	<0.002 - 0.07	<0.002	0.004		
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	-	0.05 - 0.4	0.2	0.2		
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - 13	0	0		
E Coli	1	1.1	<1	cfu/100mL	0	0 - <2	0	0		
Field Measurements										
Temp	-		-	Deg C	-	8.5 - 12.3*	9	12.4		
pH	-		-	pH Units	6.5 - 8.5	6.7 - 8*	7.16	7.34		
Conductivity	-		-	Us/cm	-	420 - 1134*	824	1132		

 exceeds ODWS

 exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

17-62821

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW5 Receptor			
							Jun-17	Aug-17	Aug-18	Dec-18
Alkalinity	306	336.6	NV	mg/l	30-500	282 - 376	300	295	282	303
Ammonia Total	0.12	0.132	NV	mg/l	-	<0.002 - 0.06	< 0.01	< 0.01	< 0.01	0.01
Chloride	102	112.2	176	mg/l	250	74 - 148	119	113	124	125
Nitrate	1	1.1	3.25	mg/l	10	0.07 - 0.5	0.32	0.23	0.16	0.13
Nitrite	0.05	0.055	0.29	mg/l	1	0.01 - 0.06	< 0.05	< 0.05	< 0.05	0.06
pH	8.3	9.13	NV	pH units	6.5-8.5	7.3 - 8.31	7.99	7.92	7.9	7.95
Total Dissolved Solids	507	557.7	NV	mg/l	500	483 - 545*	568	545	531	531
Phosphorus	0.5	0.55	NV	mg/l	-	<0.002 - 0.37	< 0.01	< 0.01	< 0.01	< 0.01
o-Phosphate	1.2	1.32	NV	mg/l	-	0.002 - 0.07	< 0.01	< 0.01	< 0.01	< 0.01
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	-	0.05 - 0.5	0.05	< 0.1	< 0.1	0.1
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - <10	< 10	0	0	0
E Coli	1	1.1	<1	cfu/100mL	0	0 - <2	< 2	0	0	0
Field Measurements										
Temp	-		-	Deg C	-	9.3 - 12.5*	9.5	12.5	11.5	9.5
pH	-		-	pH Units	6.5 - 8.5	5.5 - 7.8*	7.2	7.0	7.0	7.2
Conductivity	-		-	Us/cm	-	430 - 1243*	977	1020	687	544

 exceeds ODWS

 exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

17-6282I

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW5 Receptor			
							May-19	Sep-19	May-20	Sep-20
Alkalinity	306	336.6	NV	mg/l	30-500	282 - 376	285	292	287	284
Ammonia Total	0.12	0.132	NV	mg/l	-	<0.002 - 0.06	0.04	< 0.01	< 0.01	0.01
Chloride	102	112.2	176	mg/l	250	74 - 148	114	84.8	99.3	103
Nitrate	1	1.1	3.25	mg/l	10	0.07 - 0.5	0.35	0.18	0.33	0.17
Nitrite	0.05	0.055	0.29	mg/l	1	0.01 - 0.06	< 0.05	< 0.05	< 0.05	< 0.05
pH	8.3	9.13	NV	pH units	6.5-8.5	7.3 - 8.31	7.97	7.91	8.21	7.95
Total Dissolved Solids	507	557.7	NV	mg/l	500	483 - 545*	521	506	483	493
Phosphorus	0.5	0.55	NV	mg/l	-	<0.002 - 0.37	0.01	<0.01	0.01	< 0.01
o-Phosphate	1.2	1.32	NV	mg/l	-	0.002 - 0.07	0.006	<0.002	0.009	< 0.002
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	-	0.05 - 0.5	< 0.1	0.1	< 0.1	0.2
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - <10	0	0	0	0
E Coli	1	1.1	<1	cfu/100mL	0	0 - <2	0	0	0	0
Field Measurements										
Temp	-		-	Deg C	-	9.3 - 12.5*	9.9	11.4	9.8	9.3
pH	-		-	pH Units	6.5 - 8.5	5.5 - 7.8*	7.8	6.9	7.2	7.8
Conductivity	-		-	Us/cm	-	430 - 1243*	430	958	689	902



exceeds ODWS



exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

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Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

17-62821

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW5 Receptor			
							May-21	Sep-21	Apr-22	Sep-22
Alkalinity	306	336.6	NV	mg/l	30-500	282 - 376	313	319	297	314
Ammonia Total	0.12	0.132	NV	mg/l	-	<0.002 - 0.06	< 0.01	<0.01	<0.01	<0.01
Chloride	102	112.2	176	mg/l	250	74 - 148	105	103	0.9	106
Nitrate	1	1.1	3.25	mg/l	10	0.07 - 0.5	0.07	0.12	<0.05	<0.05
Nitrite	0.05	0.055	0.29	mg/l	1	0.01 - 0.06	< 0.05	<0.05	<0.05	<0.05
pH	8.3	9.13	NV	pH units	6.5-8.5	7.3 - 8.31	8.31	8.00	7.7	7.91
Total Dissolved Solids	507	557.7	NV	mg/l	500	483 - 545*	489	517	514	500
Phosphorus	0.5	0.55	NV	mg/l	-	<0.002 - 0.37	0.02	0.01	<0.01	0.03
o-Phosphate	1.2	1.32	NV	mg/l	-	0.002 - 0.07	< 0.002	<0.002	<0.002	<0.002
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	-	0.05 - 0.5	0.1	0.3	<0.1	0.2
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - <10	0	0	--	0
E Coli	1	1.1	<1	cfu/100mL	0	0 - <2	0	0	--	0
Field Measurements										
Temp	-		-	Deg C	-	9.3 - 12.5*	9.9	10.7	9.7	9.7
pH	-		-	pH Units	6.5 - 8.5	5.5 - 7.8*	6.2	7.0	7.43	5.5
Conductivity	-		-	Us/cm	-	430 - 1243*	962	926	940	1010



exceeds ODWS



exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

17-62821

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW5 Receptor			
							Jun-23	Oct-23	Apr-24	Oct-24
Alkalinity	306	336.6	NV	mg/l	30-500	282 - 376	308	321	314	326
Ammonia Total	0.12	0.132	NV	mg/l	-	<0.002 - 0.06	<0.01	<0.05	<0.05	<0.05
Chloride	102	112.2	176	mg/l	250	74 - 148	112	107	103	104
Nitrate	1	1.1	3.25	mg/l	10	0.07 - 0.5	<0.05	0.32	0.21	0.36
Nitrite	0.05	0.055	0.29	mg/l	1	0.01 - 0.06	<0.05	<0.05	<0.05	<0.05
pH	8.3	9.13	NV	pH units	6.5-8.5	7.3 - 8.31	7.94	8.04	8.08	8.1
Total Dissolved Solids	507	557.7	NV	mg/l	500	483 - 545*	493	511	518	510
Phosphorus	0.5	0.55	NV	mg/l	-	<0.002 - 0.37	<0.01	0.02	0.02	<0.01
o-Phosphate	1.2	1.32	NV	mg/l	-	0.002 - 0.07	<0.002	0.003	<0.002	<0.002
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	-	0.05 - 0.5	<0.1	0.2	0.1	0.1
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - <10	0	0	0	0
E Coli	1	1.1	<1	cfu/100mL	0	0 - <2	0	0	0	0
Field Measurements										
Temp	-		-	Deg C	-	9.3 - 12.5*	10.9	10.3	11.9	10.1
pH	-		-	pH Units	6.5 - 8.5	5.5 - 7.8*	7.41	6.71	6.91	7.59
Conductivity	-		-	Us/cm	-	430 - 1243*	1243	1016	1036	892

 exceeds ODWS

 exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

17-62821

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW5 Receptor			
							Apr-25	Oct-25		
Alkalinity	306	336.6	NV	mg/l	30-500	282 - 376	317	327		
Ammonia Total	0.12	0.132	NV	mg/l	-	<0.002 - 0.06	<0.05	<0.05		
Chloride	102	112.2	176	mg/l	250	74 - 148	108	114		
Nitrate	1	1.1	3.25	mg/l	10	0.07 - 0.5	0.38	0.16		
Nitrite	0.05	0.055	0.29	mg/l	1	0.01 - 0.06	<0.05	<0.05		
pH	8.3	9.13	NV	pH units	6.5-8.5	7.3 - 8.31	8.07	8.03		
Total Dissolved Solids	507	557.7	NV	mg/l	500	483 - 545*	518	533		
Phosphorus	0.5	0.55	NV	mg/l	-	<0.002 - 0.37	<0.01	0.02		
o-Phosphate	1.2	1.32	NV	mg/l	-	0.002 - 0.07	<0.002	<0.002		
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	-	0.05 - 0.5	0.2	0.2		
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - <10	0	0		
E Coli	1	1.1	<1	cfu/100mL	0	0 - <2	0	0		
Field Measurements										
Temp	-		-	Deg C	-	9.3 - 12.5*	11	11.3		
pH	-		-	pH Units	6.5 - 8.5	5.5 - 7.8*	6.96	7.83		
Conductivity	-		-	Us/cm	-	430 - 1243*	865	1128		

 exceeds ODWS

 exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

17-6282I

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW6 Background			
							Jun-17	Aug-17	Aug-18	Dec-18
Alkalinity	306	336.6	NV	mg/l	30-500	255- 306	273	273	255	275
Ammonia Total	0.12	0.132	NV	mg/l	-	<0.002 - 0.12	< 0.01	< 0.01	< 0.01	0.03
Chloride	102	112.2	176	mg/l	250	38 - 102	60.4	54.9	58.4	63.8
Nitrate	1	1.1	3.25	mg/l	10	0.01 - 1	0.51	0.4	0.51	0.46
Nitrite	0.05	0.055	0.29	mg/l	1	<0.01 - <0.05	< 0.05	< 0.05	< 0.05	< 0.05
pH	8.3	9.13	NV	pH units	6.5-8.5	7.02 - 8.30	7.97	7.9	7.91	7.86
Total Dissolved Solids	507	557.7	NV	mg/l	500	428 - 507*	489	469	473	487
Phosphorus	0.5	0.55	NV	mg/l	-	<0.01 - 0.5	< 0.01	< 0.01	< 0.01	< 0.01
o-Phosphate	1.2	1.32	NV	mg/l	-	<0.01 - 1.2	< 0.01	< 0.01	< 0.01	< 0.01
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	-	<0.1 - 7.2	0.01	< 0.1	<0.1	< 0.1
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - <10	< 10	0	0	0
E Coli	1	1.1	<1	cfu/100mL	0	0 - <2	< 2	0	0	0
Field Measurements										
Temp	-		-	Deg C	-	8.8 - 11.3*	10.0	11.2	11.3	10.3
pH	-		-	pH Units	6.5 - 8.5	6 - 8.2*	7.3	6.5	7.4	7.1
Conductivity	-		-	Us/cm	-	388 - 1103*	864	886	632	515



exceeds ODWS



exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

17-6282I

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW6 Background			
							May-19	Sep-19	May-20	Sep-20
Alkalinity	306	336.6	NV	mg/l	30-500	255- 306	258	266	262	258
Ammonia Total	0.12	0.132	NV	mg/l	-	<0.002 - 0.12	0.05	0.01	< 0.01	0.02
Chloride	102	112.2	176	mg/l	250	38 - 102	44.3	56.2	57.5	60.8
Nitrate	1	1.1	3.25	mg/l	10	0.01 - 1	0.36	0.52	0.34	0.42
Nitrite	0.05	0.055	0.29	mg/l	1	<0.01 - <0.05	< 0.05	< 0.05	< 0.05	< 0.05
pH	8.3	9.13	NV	pH units	6.5-8.5	7.02 - 8.30	7.99	7.86	7.99	7.92
Total Dissolved Solids	507	557.7	NV	mg/l	500	428 - 507*	428	497	460	472
Phosphorus	0.5	0.55	NV	mg/l	-	<0.01 - 0.5	0.01	< 0.01	< 0.01	0.01
o-Phosphate	1.2	1.32	NV	mg/l	-	<0.01 - 1.2	0.003	< 0.002	0.003	< 0.002
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	-	<0.1 - 7.2	< 0.1	0.1	< 0.1	0.1
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - <10	0	0	0	0
E Coli	1	1.1	<1	cfu/100mL	0	0 - <2	0	0	0	0
Field Measurements										
Temp	-		-	Deg C	-	8.8 - 11.3*	9.3	10.6	10.3	8.8
pH	-		-	pH Units	6.5 - 8.5	6 - 8.2*	8.2	7.2	7.02	8.3
Conductivity	-		-	Us/cm	-	388 - 1103*	388	920	934	856



exceeds ODWS



exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

17-6282I

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW6 Background			
							May-21	Sep-21	Apr-22	Sep-22
Alkalinity	306	336.6	NV	mg/l	30-500	255- 306	275	285	266	285
Ammonia Total	0.12	0.132	NV	mg/l	-	<0.002 - 0.12	< 0.01	< 0.002	0.01	<0.01
Chloride	102	112.2	176	mg/l	250	38 - 102	64.2	74.1	74.3	52.8
Nitrate	1	1.1	3.25	mg/l	10	0.01 - 1	0.37	0.61	0.69	0.42
Nitrite	0.05	0.055	0.29	mg/l	1	<0.01 - <0.05	< 0.05	<0.05	<0.05	<0.05
pH	8.3	9.13	NV	pH units	6.5-8.5	7.02 - 8.30	8.3	7.91	7.76	7.89
Total Dissolved Solids	507	557.7	NV	mg/l	500	428 - 507*	472	505	507	444
Phosphorus	0.5	0.55	NV	mg/l	-	<0.01 - 0.5	0.02	<0.01	<0.01	0.01
o-Phosphate	1.2	1.32	NV	mg/l	-	<0.01 - 1.2	< 0.002	<0.002	<0.002	<0.002
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	-	<0.1 - 7.2	0.1	0.1	<0.1	0.1
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - <10	0	0	--	0
E Coli	1	1.1	<1	cfu/100mL	0	0 - <2	0	0	--	0
Field Measurements										
Temp	-		-	Deg C	-	8.8 - 11.3*	9.3	10	10.1	9.8
pH	-		-	pH Units	6.5 - 8.5	6 - 8.2*	6	7	7.38	7.1
Conductivity	-		-	Us/cm	-	388 - 1103*	932	918	920	850

 exceeds ODWS

 exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

17-6282I

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW6 Background			
							Jun-23	Oct-23	Apr-24	Oct-24
Alkalinity	306	336.6	NV	mg/l	30-500	255- 306	281	291	278	285
Ammonia Total	0.12	0.132	NV	mg/l	-	<0.002 - 0.12	<0.01	<0.05	<0.05	<0.05
Chloride	102	112.2	176	mg/l	250	38 - 102	57.0	66.8	48.4	58.8
Nitrate	1	1.1	3.25	mg/l	10	0.01 - 1	0.54	<0.05	0.44	0.63
Nitrite	0.05	0.055	0.29	mg/l	1	<0.01 - <0.05	<0.05	<0.05	<0.05	<0.05
pH	8.3	9.13	NV	pH units	6.5-8.5	7.02 - 8.30	7.91	8.01	7.99	8.02
Total Dissolved Solids	507	557.7	NV	mg/l	500	428 - 507*	438	500	445	477
Phosphorus	0.5	0.55	NV	mg/l	-	<0.01 - 0.5	<0.01	<0.01	0.03	<0.01
o-Phosphate	1.2	1.32	NV	mg/l	-	<0.01 - 1.2	<0.002	<0.002	0.008	<0.002
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	-	<0.1 - 7.2	<0.1	0.1	0.1	0.1
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - <10	0	0	0	0
E Coli	1	1.1	<1	cfu/100mL	0	0 - <2	0	0	0	0
Field Measurements										
Temp	-		-	Deg C	-	8.8 - 11.3*	10.4	10.4	10.8	10.1
pH	-		-	pH Units	6.5 - 8.5	6 - 8.2*	7.44	7.38	6.94	7.65
Conductivity	-		-	Us/cm	-	388 - 1103*	1103	921	910	837



exceeds ODWS



exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

17-6282I

Parameter	Maximum Background Well 6	Maximum Background Plus 10%	RUC	Unit	ODWS	Historical Range 2005 - 2024	MW6 Background			
							Apr-25	Oct-25		
Alkalinity	306	336.6	NV	mg/l	30-500	255- 306	279	290		
Ammonia Total	0.12	0.132	NV	mg/l	-	<0.002 - 0.12	<0.05	<0.05		
Chloride	102	112.2	176	mg/l	250	38 - 102	55.1	103		
Nitrate	1	1.1	3.25	mg/l	10	0.01 - 1	0.5	0.96		
Nitrite	0.05	0.055	0.29	mg/l	1	<0.01 - <0.05	<0.05	<0.05		
pH	8.3	9.13	NV	pH units	6.5-8.5	7.02 - 8.30	8.15	8.01		
Total Dissolved Solids	507	557.7	NV	mg/l	500	428 - 507*	470	549		
Phosphorus	0.5	0.55	NV	mg/l	-	<0.01 - 0.5	<0.01	0.02		
o-Phosphate	1.2	1.32	NV	mg/l	-	<0.01 - 1.2	<0.002	<0.002		
Total Kjeldahl Nitrogen	7.2	7.92	NV	mg/l	-	<0.1 - 7.2	0.1	0.2		
Total Coliforms	1	1.1	<1	cfu/100mL	0	0 - <10	0	1		
E Coli	1	1.1	<1	cfu/100mL	0	0 - <2	0	0		
Field Measurements										
Temp	-		-	Deg C	-	8.8 - 11.3*	10.5	10.4		
pH	-		-	pH Units	6.5 - 8.5	6 - 8.2*	7.29	7.54		
Conductivity	-		-	Us/cm	-	388 - 1103*	783	1159		

 exceeds ODWS

 exceeds 10% Max Background

NDOGT No data; Overgrown with target bacteria

* Data from 2017 to 2025

Table 2 - Mississippi Mills Sewage Lagoon

17-6282I

Parameter	MW3A			MW3A		
	Apr.25			Oct.25		
	Sample	Dup	RPD	Sample	Dup	RPD
Alkalinity	280	305	8.5%	297.00	298.00	0.3%
Ammonia Total	<0.05	<0.05	NC	<0.05	<0.05	NC
Chloride	110	111	0.9%	121	121	NC
Nitrate	1.23	1.16	5.9%	0.52	0.51	1.9%
Nitrite	<0.05	<0.05	NC	<0.05	<0.05	NC
pH	8.13	8.05	1.0%	7.97	8.03	0.7%
Total Dissolved Solids	504	508	0.8%	518	519	0.2%
Phosphorus	<0.01	0.02	NC	<0.01	0.02	NC
o-Phosphate	<0.002	0.004	NC	0.002	0.002	NC
Total Kjeldahl Nitrogen	0.2	0.2	NC	0.1	0.2	66.7%
Total Coliforms	0	1	200.0%	1	2	66.7%
E Coli	0	0	NC	0	0	NC
Average RPD	36.18%			22.76%		

Notes:

All units are mg/L unless otherwise noted.

MDL = Method Detection Limit

-- = Not Analyzed

mBTOR = Groundwater level (m) below top of PVC riser

mBGS = metres below ground surface

mASD = metres above site datum

mASL = meters above sea level

NV = No Value

ODWS = Ontario Drinking Water Standards, Objectives and Guidelines

AO = Aesthetic Objective

OG = Operational Guideline

* = median calculated with non-detect parameters equaling the MDL.

 indicates concentrations that exceed ODWS/OGs

 indicates concentrations that exceed max background plus 10%

[1] = Greater than 200 CFU of background colonies per filter may interfere with target reactions and the analysts' ability to count E. Coli and Total Coliform. The target colonies may be under-represented

[2] = Confluent background colonies on filter: may interfere with target reactions and analysts' ability to count E. Coli & Total Coliform. The target colonies may be under-represented.

[3] = "<" Bacteria sample was diluted due to suspended particulate matter

[4] = Elevated reporting limit due to matrix interference

[5] = Increased detection limit was a consequence of dilution/reduced analysis volume due to high background bacteria levels

[6] = Bacteria reported as "< 2 or greater may be a result of laboratory dilution.

APPENDIX A
MUNICIPAL DRINKING WATER LICENCE
No. 178-101

MUNICIPAL DRINKING WATER LICENCE

Licence Number: 178-101

Issue Number: 5

Pursuant to the *Safe Drinking Water Act*, 2002, S.O. 2002, c. 32, and the regulations made thereunder and subject to the limitations thereof, I hereby issue this municipal drinking water licence under Part V of the *Safe Drinking Water Act*, 2002, S.O. 2002, c. 32 to:

The Corporation of the Municipality of Mississippi Mills

**3131 Old Perth Road
Almonte, ON K0A 1A0**

For the following municipal residential drinking water system:

Mississippi Mills Drinking Water System

This municipal drinking water licence includes the following:

Schedule	Description
Schedule A	Drinking Water System Information
Schedule B	General Conditions
Schedule C	System-Specific Conditions
Schedule D	Conditions for Relief from Regulatory Requirements
Schedule E	Pathogen Log Removal/Inactivation Credits

Upon the effective date of this drinking water licence #178-101, all previously issued versions of licence #178-101 are revoked and replaced by this licence.

DATED at TORONTO this 26th day of November, 2021

Signature



Aziz Ahmed, P.Eng.
Director
Part V, *Safe Drinking Water Act*, 2002

Schedule A: Drinking Water System Information

System Owner	The Corporation of the Municipality of Mississippi Mills
Licence Number	178-101
Drinking Water System Name	Mississippi Mills Drinking Water System
Licence Effective Date	November 26, 2021

1.0 Licence Information

Licence Issue Date	November 26, 2021
Licence Effective Date	November 26, 2021
Licence Expiry Date	November 25, 2026
Application for Licence Renewal Date	May 24, 2026

2.0 Incorporated Documents

The following documents are applicable to the above drinking water system and form part of this licence:

2.1 Drinking Water Works Permit

Drinking Water System Name	Permit Number	Issue Date
Mississippi Mills Drinking Water System	178-201	November 26, 2021

2.2 Permits to Take Water

Water Taking Location	Permit Number	Issue Date
Groundwater Wells 3, 5, 6, 7, 8	8175-AQPHA8	September 8, 2017

2.3 Other Documents

Document Title	Version Number	Version Date
Not Applicable	Not Applicable	Not Applicable

3.0 Financial Plans

The Financial Plan Number for the Financial Plan required to be developed for this drinking water system in accordance with O. Reg. 453/07 shall be:	178-301
Alternately, if one Financial Plan is developed for all drinking water systems owned by the owner, the Financial Plan Number shall be:	178-301A

4.0 Accredited Operating Authority

Drinking Water System or Operational Subsystems	Accredited Operating Authority	Operational Plan No.	Operating Authority No.
Mississippi Mills Drinking Water System – Distribution System (A)	Municipality of Mississippi Mills	178-401A	178-OA1
Mississippi Mills Drinking Water System – Well Supply (B)	Ontario Clean Water Agency	178-401B	178-OA2

Schedule B: General Conditions

System Owner	The Corporation of the Municipality of Mississippi Mills
Licence Number	178-101
Drinking Water System Name	Mississippi Mills Drinking Water System
Licence Effective Date	November 26, 2021

1.0 Definitions

1.1 Words and phrases not defined in this licence and the associated drinking water works permit shall be given the same meaning as those set out in the SDWA and any regulations made in accordance with that act, unless the context requires otherwise.

1.2 In this licence and the associated drinking water works permit:

“adverse effect”, “contaminant” and “natural environment” shall have the same meanings as in the EPA;

“alteration” may include the following in respect of this drinking water system:

- (a) An addition to the system,
- (b) A modification of the system,
- (c) A replacement of part of the system, and
- (d) An extension of the system;

“compound of concern” means a contaminant described in paragraph 4 subsection 26 (1) of O. Reg. 419/05, namely, a contaminant that is discharged to the air from a component of the drinking water system in an amount that is not negligible;

“CT” means the CT Disinfection Concept, as described in subsection 3.1.1 of the Ministry’s Procedure for Disinfection of Drinking Water in Ontario, dated July 29 2016.

“Director” means a Director appointed pursuant to section 6 of the SDWA for the purposes of Part V of the SDWA;

“drinking water works permit” means the drinking water works permit for the drinking water system, as identified in Schedule A of this licence and as amended from time to time;

“emission summary table” means a table described in paragraph 14 of subsection 26 (1) of O. Reg. 419/05;

“EPA” means the *Environmental Protection Act*, R.S.O. 1990, c. E.19;

“financial plan” means the financial plan required by O. Reg. 453/07;

“Harmful Algal Bloom (HAB)” means an overgrowth of aquatic algal bacteria that produce or have the potential to produce toxins in the surrounding water, when the algal

cells are damaged or die. Such bacteria are harmful to people and animals and include microcystins produced by cyanobacterial blooms.

“licence” means this municipal drinking water licence for the municipal drinking water system identified in Schedule A of this licence;

“licensed engineering practitioner” means a person who holds a licence, limited licence or temporary licence under the Professional Engineers Act;

“Ministry” means the Ontario Ministry of the Environment, Conservation and Parks;

“operational plan” means an operational plan developed in accordance with the Director’s Directions – Minimum Requirements for Operational Plans made under the authority of subsection 15(1) of the SDWA;

“owner” means the owner of the drinking water system as identified in Schedule A of this licence;

“OWRA” means the *Ontario Water Resources Act*, R.S.O. 1990, c. 0.40;

“permit to take water” means the permit to take water that is associated with the taking of water for purposes of the operation of the drinking water system, as identified in Schedule A of this licence and as amended from time to time;

“point of impingement” has the same meaning as in section 2 of O. Reg. 419/05 under the EPA;

“point of impingement limit” means the appropriate standard from Schedule 2 or 3 of O. Reg. 419/05 under the EPA and if a standard is not provided for a compound of concern, the concentration set out for the compound of concern in the document titled “Air Contaminants Benchmarks (ACB) List: Standards, guidelines and screening levels for assessing point of impingement concentrations of air contaminants”, as amended from time to time and published by the Ministry and available on a government of Ontario website;

“provincial officer” means a provincial officer designated pursuant to section 8 of the SDWA;

“publication NPC-300” means the Ministry publication titled “Environmental Noise Guideline: Stationary and Transportation Sources – Approval and Planning” dated August 2013, as amended;

“SCADA system” means a supervisory control and data acquisition system used for process monitoring, automation, recording and/or reporting within the drinking water system;

“SDWA” means the *Safe Drinking Water Act*, 2002, S.O. 2002, c. 32;

“sensitive receptor” means any location where routine or normal activities occurring at reasonably expected times would experience adverse effect(s) from a discharge to air from an emergency generator that is a component of the drinking water system, including one or a combination of:

- (a) private residences or public facilities where people sleep (e.g.: single and multi-unit dwellings, nursing homes, hospitals, trailer parks, camping grounds, etc.),
- (b) institutional facilities (e.g.: schools, churches, community centres, day care centres, recreational centres, etc.),
- (c) outdoor public recreational areas (e.g.: trailer parks, play grounds, picnic areas, etc.), and
- (d) other outdoor public areas where there are continuous human activities (e.g.: commercial plazas and office buildings).

“sub-system” has the same meaning as in Ontario Regulation 128/04 (Certification of Drinking Water System Operators and Water Quality Analysts) under the SDWA;

“surface water” means water bodies (lakes, wetlands, ponds - including dug-outs), water courses (rivers, streams, water-filled drainage ditches), infiltration trenches, and areas of seasonal wetlands;

“UV” means ultraviolet, as in ultraviolet light produced from an ultraviolet reactor.

2.0 Applicability

- 2.1 In addition to any other applicable legal requirements, the drinking water system identified above shall be established, altered and operated in accordance with the conditions of the drinking water works permit and this licence.

3.0 Licence Expiry

- 3.1 This licence expires on the date identified as the licence expiry date in Schedule A of this licence.

4.0 Licence Renewal

- 4.1 Any application to renew this licence shall be made on or before the date identified as the application for licence renewal date set out in Schedule A of this licence.

5.0 Compliance

- 5.1 The owner and operating authority shall ensure that any person authorized to carry out work on or to operate any aspect of the drinking water system has been informed of the SDWA, all applicable regulations made in accordance with that act, the drinking water works permit and this licence and shall take all reasonable measures to ensure any such person complies with the same.

6.0 Licence and Drinking Water Works Permit Availability

- 6.1** At least one copy of this licence and the drinking water works permit shall be stored in such a manner that they are readily viewable by all persons involved in the operation of the drinking water system.

7.0 Permit to Take Water and Drinking Water Works Permit

- 7.1** A permit to take water identified in Schedule A of this licence is the applicable permit on the date identified as the Effective Date of this licence.
- 7.2** A drinking water works permit identified in Schedule A of this licence is the applicable permit on the date identified as the Effective Date of this licence.

8.0 Financial Plan

- 8.1** For every financial plan prepared in accordance with subsections 2(1) and 3(1) of O. Reg. 453/07, the owner of the drinking water system shall:
- 8.1.1** Ensure that the financial plan contains on the front page of the financial plan, the appropriate financial plan number as set out in Schedule A of this licence; and
 - 8.1.2** Submit a copy of the financial plan to the Ministry of Municipal Affairs and Housing within three (3) months of receiving approval by a resolution of municipal council or the governing body of the owner.

9.0 Interpretation

- 9.1** Where there is a conflict between the provisions of this licence and any other document, the following hierarchy shall be used to determine the provision that takes precedence:
- 9.1.1** The SDWA;
 - 9.1.2** A condition imposed in this licence that explicitly overrides a prescribed regulatory requirement;
 - 9.1.3** A condition imposed in the drinking water works permit that explicitly overrides a prescribed regulatory requirement;
 - 9.1.4** Any regulation made under the SDWA;
 - 9.1.5** Any provision of this licence that does not explicitly override a prescribed regulatory requirement;
 - 9.1.6** Any provision of the drinking water works permit that does not explicitly override a prescribed regulatory requirement;
 - 9.1.7** Any application documents listed in this licence, or the drinking water works permit from the most recent to the earliest; and

- 9.1.8 All other documents listed in this licence, or the drinking water works permit from the most recent to the earliest.
- 9.1.9 Any other technical bulletin or procedure issued by the Ministry from the most recent to the earliest.
- 9.2** If any requirement of this licence or the drinking water works permit is found to be invalid by a court of competent jurisdiction, the remaining requirements of this licence and the drinking water works permit shall continue to apply.
- 9.3** The issuance of and compliance with the conditions of this licence and the drinking water works permit does not:
 - 9.3.1 Relieve any person of any obligation to comply with any provision of any applicable statute, regulation or other legal requirement, including the *Environmental Assessment Act*, R.S.O. 1990, c. E.18; and
 - 9.3.2 Limit in any way the authority of the appointed Directors and provincial officers of the Ministry to require certain steps be taken or to require the owner to furnish any further information related to compliance with the conditions of this licence or the drinking water works permit.
- 9.4** For greater certainty, nothing in this licence or the drinking water works permit shall be read to provide relief from regulatory requirements in accordance with section 46 of the SDWA, except as expressly provided in the licence or the drinking water works permit.

10.0 Adverse Effects

- 10.1** Nothing in this licence or the drinking water works permit shall be read as to permit:
 - 10.1.1 The discharge of a contaminant into the natural environment that causes or is likely to cause an adverse effect; or
 - 10.1.2 The discharge of any material of any kind into or in any waters or on any shore or bank thereof or into or in any place that may impair the quality of the water of any waters.
- 10.2** All reasonable steps shall be taken to minimize and ameliorate any adverse effect on the natural environment or impairment of the quality of water of any waters resulting from the operation of the drinking water system including such accelerated or additional monitoring as may be necessary to determine the nature and extent of the effect or impairment.
- 10.3** Fulfillment of one or more conditions imposed by this licence or the drinking water works permit does not eliminate the requirement to fulfill any other condition of this licence or the drinking water works permit.

11.0 Change of Owner or Operating Authority

- 11.1** This licence is not transferable without the prior written consent of the Director.
- 11.2** The owner shall notify the Director in writing at least 30 days prior to a change of any operating authority identified in Schedule A of this licence.
- 11.2.1 Where the change of operating authority is the result of an emergency situation, the owner shall notify the Director in writing of the change as soon as practicable.

12.0 Information to be Provided

- 12.1** Any information requested by a Director or a provincial officer concerning the drinking water system and its operation, including but not limited to any records required to be kept by this licence or the drinking water works permit, shall be provided upon request.

13.0 Records Retention

- 13.1** Except as otherwise required in this licence or the drinking water works permit, any records required by or created in accordance with this licence or the drinking water works permit, other than the records specifically referenced in section 12 or section 13 of O. Reg. 170/03, shall be retained for at least 5 years and made available for inspection by a provincial officer, upon request.

14.0 Chemicals and Materials

- 14.1** All chemicals and materials used in the alteration or operation of the drinking water system that come into contact with water within the system shall meet all applicable standards set by both the American Water Works Association ("AWWA") and the American National Standards Institute ("ANSI") safety criteria standards NSF/60, NSF/61 and NSF/372.
- 14.1.1 In the event that the standards are updated, the owner may request authorization from the Director to use any on hand chemicals and materials that previously met the applicable standards.
- 14.2** The most current chemical and material product registration documentation from a testing institution accredited by either the Standards Council of Canada or by the American National Standards Institution ("ANSI") shall be available at all times for each chemical and material used in the operation of the drinking water system that comes into contact with water within the system.
- 14.3** Conditions 14.1 and 14.2 do not apply in the case of the following:
- 14.3.1 Water pipe and pipe fittings meeting AWWA specifications made from ductile iron, cast iron, PVC, fibre and/or steel wire reinforced cement pipe or high density polyethylene (HDPE);
- 14.3.2 Articles made from stainless steel, glass, HDPE or Teflon®;

- 14.3.3 Cement mortar for watermain lining and for water contacting surfaces of concrete structures made from washed aggregates and Portland cement;
- 14.3.4 Gaskets that are made from NSF approved materials;
- 14.3.5 Food grade oils and lubricants, food grade anti-freeze, and other food grade chemicals and materials that are compatible for drinking water use that may come into contact with drinking water, but are not added directly to the drinking water; or
- 14.3.6 Any particular chemical or material where the owner has written documentation signed by the Director that indicates that the Ministry is satisfied that the chemical or material is acceptable for use within the drinking water system and the chemical or material is only used as permitted by the documentation.

15.0 Drawings

- 15.1 All drawings and diagrams in the possession of the owner that show any treatment subsystem as constructed shall be retained by the owner unless the drawings and diagrams are replaced by a revised or updated version showing the subsystem as constructed subsequent to the alteration.
- 15.2 Any alteration to any treatment subsystem shall be incorporated into process flow diagrams, process and instrumentation diagrams, and record drawings and diagrams within one year of the alteration being completed or placed into service.
- 15.3 Process flow diagrams and process and instrumentation diagrams for any treatment subsystem shall be kept in a place, or made available in such a manner, that they may be readily viewed by all persons responsible for all or part of the operation of the drinking water system.

16.0 Operations and Maintenance Manual

- 16.1 An up-to-date operations and maintenance manual or manuals shall be maintained and applicable parts of the manual or manuals shall be made available for reference to all persons responsible for all or part of the operation or maintenance of the drinking water system.
- 16.2 The operations and maintenance manual or manuals, shall include at a minimum:
 - 16.2.1 The requirements of this licence and associated procedures;
 - 16.2.2 The requirements of the drinking water works permit for the drinking water system;
 - 16.2.3 A description of the processes used to achieve primary and secondary disinfection within the drinking water system including where applicable:
 - a) A copy of the CT calculations that were used as the basis for primary disinfection under worst case operating conditions and other operating conditions, if applicable; and

- b) The validated operating conditions for UV disinfection equipment, including a copy of the validation certificate;
- 16.2.4 Procedures for monitoring and recording the in-process parameters necessary for the control of any treatment subsystem and for assessing the performance of the drinking water system;
- 16.2.5 Procedures for the operation and maintenance of monitoring equipment;
- 16.2.6 Contingency plans and procedures for the provision of adequate equipment and material to deal with emergencies, upset conditions and equipment breakdown;
- 16.2.7 Procedures for dealing with complaints related to the drinking water system, including the recording of the nature of the complaint and any investigation and corrective action taken in respect of the complaint;
- 16.2.8 An inspection schedule for all wells associated with the drinking water system, including all production wells, standby wells, test wells and monitoring wells;
- 16.2.9 Well inspection and maintenance procedures that consider the entire well structure of each well including all above and below grade well components; and
- 16.2.10 Remedial action plans for situations where an inspection indicates non-compliance with respect to regulatory requirements and/or risk to raw well water quality.
- 16.3** Procedures necessary for the operation and maintenance of any alterations to the drinking water system shall be incorporated into the operations and maintenance manual or manuals prior to those alterations coming into operation.
- 16.4** All of the procedures included or referenced within the operations and maintenance manual must be implemented.

Schedule C: System-Specific Conditions

System Owner	The Corporation of the Municipality of Mississippi Mills
Licence Number	178-101
Drinking Water System Name	Mississippi Mills Drinking Water System
Licence Effective Date	November 26, 2021

1.0 System Performance

Rated Capacity

- 1.1** For each treatment subsystem listed in column 1 of Table 1, the maximum daily volume of treated water that flows from the treatment subsystem to the distribution system shall not exceed the value identified as the rated capacity in column 2 of the same row.

Table 1: Rated Capacity	
Column 1 Treatment Subsystem Name	Column 2 Rated Capacity (m ³ /day)
Well 3	835.2
Well 5	817.9
Well 6	1958.4
Well 7 and Well 8 (Combined)	3,862.0

Maximum Flow Rates

- 1.2** For each treatment subsystem listed in column 1 of Table 2, the maximum flow rate of water that flows into a treatment subsystem component listed in column 2 shall not exceed the value listed in column 3 of the same row.

Table 2: Maximum Flow Rates		
Column 1 Treatment Subsystem Name	Column 2 Treatment Subsystem Component	Column 3 Maximum Flow Rate (L/s)
Not Applicable	Not Applicable	Not Applicable

- 1.3** Despite conditions 1.1 and 1.2, a treatment subsystem may be operated temporarily at a maximum daily volume and/or a maximum flow rate above the values set out in column 2 of Table 1 and column 3 of Table 2 respectively for the purposes of fighting a large fire or for the maintenance of the drinking water system.
- 1.4** Condition 1.3 does not authorize the discharge into the distribution system of any water that does not meet all of the requirements of this licence and all other regulatory requirements, including compliance with the Ontario Drinking Water Quality Standards.

Residuals Management

- 1.5** In respect of an effluent discharged into the natural environment from a treatment subsystem or treatment subsystem component listed in column 1 of Table 3:
- 1.5.1 The annual average concentration of a test parameter identified in column 2 shall:
- a) not exceed the value in column 3 of the same row; and
 - b) be calculated at least once monthly as the running annual average based on the previous twelve months of results;
- 1.5.2 Where the average concentration of a test parameter identified in column 2 exceeds the value in column 3, the concentration shall be reported to the local Ministry district office within 72 hours of receipt of the last lab result used in the calculation;
- 1.5.3 The maximum concentration of a test parameter identified in column 2 shall not exceed the value in column 4 of the same row;
- 1.5.4 Where the maximum concentration of a test parameter identified in column 2 exceeds the value in column 4, the discharge shall be reported in accordance with s.13.2 of O. Reg. 675.98 and recorded in accordance with s.12.2 of O. Reg. 675.98 within 24 hours of receipt of the lab result; and,
- 1.5.5 The test parameters listed in column 2 of Table 3 shall be sampled in accordance with conditions 5.2, 5.3 and 5.4 of Schedule C in this Licence.

Table 3: Residuals Management			
Column 1 Treatment Subsystem or Treatment Subsystem Component Name	Column 2 Test Parameter	Column 3 Annual Average Concentration (mg/L)	Column 4 Maximum Concentration (mg/L)
Not Applicable	Not Applicable	Not Applicable	Not Applicable

UV Disinfection Equipment Performance

- 1.6** For each treatment subsystem or treatment subsystem component listed in column 1 of Table 4, and while directing water to the distribution system and being used to meet pathogen log removal/inactivation credits specified in Schedule E:
- 1.6.1 The UV disinfection equipment shall be operated within the validated limits for the equipment at all times such that a continuous pass-through UV dose is maintained throughout the life time of the UV lamp(s) that is at least the minimum continuous pass-through UV dose set out in column 2 of the same row
- 1.6.2 In addition to any other sampling, analysis and recording that may be required, the ultraviolet light disinfection equipment shall test for the test parameters set

out in column 4 of the same row at a testing frequency of once every five (5) minutes or less and record the test data at a recording frequency of once every four (4) hours or less;

- 1.6.3 If there is a UV disinfection equipment alarm signaling that the disinfection equipment is malfunctioning, has lost power, or is not providing the appropriate level of disinfection the test parameters set out in column 4 of the same row shall be recorded at a recording frequency of once every five minutes or less until the alarm condition has been corrected;
- 1.6.4 A monthly summary report shall be prepared at the end of each calendar month which sets out the time, date and duration of each UV equipment alarm described in condition 1.6.3, the volume of water treated during each alarm period and the actions taken by the operating authority to correct the alarm situation;

Table 4: UV Disinfection Equipment

Column 1 Treatment Subsystem or Treatment Subsystem Component Name	Column 2 Minimum Continuous Pass-Through UV Dose (mJ/cm²)	Column 3 Control Strategy	Column 4 Test Parameter
Not Applicable	Not Applicable	Not Applicable	Not Applicable

2.0 Flow Measurement and Recording Requirements

- 2.1 For each treatment subsystem identified in column 1 of Table 1 and in addition to any other flow measurement and recording that may be required, continuous flow measurement and recording shall be undertaken for:
- 2.1.1 The flow rate (L/s) and daily volume (m³/day) of treated water that flows from the treatment subsystem to the distribution system.
- 2.1.2 The flow rate (L/s) and daily volume (m³/day) of water that flows into the treatment subsystem.
- 2.2 For each treatment subsystem component identified in column 2 of Table 2 and in addition to any other flow measurement and recording that may be required, continuous flow measurement and recording shall be undertaken for the flow rate and daily volume of water that flows into the treatment subsystem component.
- 2.3 Where a rated capacity from Table 1 or a maximum flow rate from Table 2 is exceeded, the following shall be recorded:
- 2.3.1 The difference between the measured amount and the applicable rated capacity or maximum flow rate specified in Table 1 or Table 2;
- 2.3.2 The time and date of the measurement;

2.3.3 The reason for the exceedance; and

2.3.4 The duration of time that lapses between the applicable rated capacity or maximum flow rate first being exceeded and the next measurement where the applicable rated capacity or maximum flow rate is no longer exceeded.

3.0 Calibration of Flow Measuring Devices

3.1 All flow measuring devices that are required by regulation, by a condition in the drinking water works permit 178-201, or by a condition otherwise imposed by the Ministry, shall be checked and where necessary calibrated in accordance with the manufacturer's instructions.

3.2 If the manufacturer's instructions do not indicate how often to check and calibrate a flow measuring device, the equipment shall be checked and where necessary calibrated at least once every 12 months during which the drinking water system is in operation.

3.2.1 For greater certainty, if condition 3.2 applies, the equipment shall be checked and where necessary calibrated not more than 30 days after the first anniversary of the day the equipment was checked and calibrated in the previous 12-month period.

4.0 Calibration of CT Monitoring System

4.1 Any measuring instrumentation that forms part of the monitoring system for CT shall be checked and where necessary calibrated at least once every 12 months during which the drinking water system is in operation, or more frequently in accordance with the manufacturer's instructions.

4.1.1 For greater certainty, if condition 4.1 applies, the instrumentation shall be checked and where necessary calibrated not more than 30 days after the first anniversary of the day the equipment was checked and calibrated in the previous 12-month period.

5.0 Additional Sampling, Testing and Monitoring

Drinking Water Health and Non-Health Related Parameters

5.1 For each treatment subsystem or treatment subsystem component identified in column 1 of Tables 5 and 6 and in addition to any other sampling, testing and monitoring that may be required, sampling, testing and monitoring shall be undertaken for a test parameter listed in column 2 at the sampling frequency listed in column 3 and at the monitoring location listed in column 4 of the same row.

Table 5: Drinking Water Health Related Parameters

Column 1 Treatment Subsystem or Treatment Subsystem Component Name	Column 2 Test Parameter	Column 3 Sampling Frequency	Column 4 Monitoring Location
Raw Water	Arsenic	Annually	Well 5
Raw Water	Chromium	Annually	Well 5
Raw Water	Polychlorinated Biphenyls (PCBs)	Annually	Well 5
Raw Water	Alkalinity	Twice per year (Once during March to June and another during September to November)	Well 5, Well 6, and the three (3) multi-level groundwater monitoring wells located adjacent to, and down-gradient of the sewage lagoon
Raw Water	Ammonia	Twice per year (Once during March to June and another during September to November)	Well 5, Well 6, and the three (3) multi-level groundwater monitoring wells located adjacent to, and down-gradient of the sewage lagoon
Raw Water	Chloride	Twice per year (Once during March to June and another during September to November)	Well 5, Well 6, and the three (3) multi-level groundwater monitoring wells located adjacent to, and down-gradient of the sewage lagoon
Raw Water	Nitrate	Twice per year (Once during March to June and another during September to November)	Well 5, Well 6, and the three (3) multi-level groundwater monitoring wells located adjacent to, and down-gradient of the sewage lagoon
Raw Water	Nitrite	Twice per year (Once during March to June and another during September to November)	Well 5, Well 6, and the three (3) multi-level groundwater monitoring wells located adjacent to, and down-gradient of the sewage lagoon
Raw Water	Orthophosphate	Twice per year (Once during March to June and another during September to November)	Well 5, Well 6, and the three (3) multi-level groundwater monitoring wells located adjacent to, and down-gradient of the sewage lagoon
Raw Water	Total Phosphorous	Twice per year (Once during March to June and another during September to November)	Well 5, Well 6, and the three (3) multi-level groundwater monitoring wells located adjacent to, and down-gradient of the sewage lagoon
Raw Water	pH	Twice per year	Well 5, Well 6, and the three (3) multi-level groundwater monitoring

		(Once during March to June and another during September to November)	wells located adjacent to, and down-gradient of the sewage lagoon
Raw Water	TKN	Twice per year (Once during March to June and another during September to November)	Well 5, Well 6, and the three (3) multi-level groundwater monitoring wells located adjacent to, and down-gradient of the sewage lagoon
Raw Water	Total Dissolved Solids (TDS)	Twice per year (Once during March to June and another during September to November)	Well 5, Well 6, and the three (3) multi-level groundwater monitoring wells located adjacent to, and down-gradient of the sewage lagoon
Raw Water	e.Coli (in addition to any regulatory sampling)	Twice per year (Once during March to June and another during September to November)	Well 5, Well 6, and the three (3) multi-level groundwater monitoring wells located adjacent to, and down-gradient of the sewage lagoon
Raw Water	Total Coliforms (in addition to any regulatory sampling)	Twice per year (Once during March to June and another during September to November)	Well 5, Well 6, and the three (3) multi-level groundwater monitoring wells located adjacent to, and down-gradient of the sewage lagoon
Treated Water	Total Ammonia Nitrogen (ammonia + ammonium as nitrogen)	Quarterly	Well 5
Treated Water	Total Kjeldahl Nitrogen (TKN)	Quarterly	Well 5
Treated Water	Total Phosphorus	Quarterly	Well 5
Treated Water	Orthophosphate	Quarterly	Well 5

Table 6: Drinking Water Non-Health Related Parameters

Column 1 Treatment Subsystem or Treatment Subsystem Component Name	Column 2 Test Parameter	Column 3 Sampling Frequency	Column 4 Monitoring Location
Raw Water	Water level	Twice per year (Once during March to June and another during September to November)	Well 5, Well 6, and the three (3) multi-level groundwater monitoring wells located adjacent to, and down-gradient of the sewage lagoon

Environmental Discharge Parameters

- 5.2** For each treatment subsystem or treatment subsystem component identified in column 1 of Table 7 and in addition to any other sampling, testing and monitoring that may be required, sampling, testing and monitoring shall be undertaken for a test parameter listed in column 2 using the sample type identified in column 3 at the sampling frequency listed in column 4 and at the monitoring location listed in column 5 of the same row.
- 5.3** For the purposes of Table 7:
- 5.3.1 Manual Composite means the mean of at least three grab samples taken during a discharge event, with one sample being taken immediately following the commencement of the discharge event, one sample being taken approximately at the mid-point of the discharge event and one sample being taken immediately before the end of the discharge event; and
- 5.3.2 Automated Composite means samples must be taken during a discharge event by an automated sampler at a minimum sampling frequency of once per hour.
- 5.4** Any sampling, testing and monitoring for the test parameter Total Suspended Solids shall be performed in accordance with the requirements set out in the publication "Standard Methods for the Examination of Water and Wastewater", 23rd Edition, 2017, or as amended from time to time by more recently published editions.

Table 7: Environmental Discharge Parameters				
Column 1 Treatment Subsystem or Treatment Subsystem Component Name	Column 2 Test Parameter	Column 3 Sample Type	Column 4 Sampling Frequency	Column 5 Monitoring Location
Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

- 5.5** Pursuant to Condition 10 of Schedule B of this licence, the owner may undertake the following environmental discharges associated with the maintenance and/or repair of the drinking water system:
- 5.5.1 The discharge of potable water from a watermain to a road or storm sewer;
- 5.5.2 The discharge of potable water from a water storage facility or pumping station:
- a) To a road or storm sewer; or
- b) To a watercourse where the discharge has been dechlorinated and if necessary, sediment and erosion control measures have been implemented.
- 5.5.3 The discharge of dechlorinated non-potable water from a watermain, water storage facility or pumping station to a road or storm sewer;
- 5.5.4 The discharge of raw water from a groundwater well to the environment where if necessary, sediment and erosion control measures have been implemented; and

- 5.5.5 The discharge of raw water, potable water or non-potable water from a treatment subsystem to the environment where if necessary, the discharge has been dechlorinated and sediment and erosion control measures have been implemented.
- 5.5.6 The discharge of any excess water to a road, storm sewer or the environment, associated with the management of materials excavated as part of watermain construction or repair, where necessary sediment, erosion and environmental control measures have been implemented.

6.0 Studies Required

- 6.1 Not Applicable

7.0 Source Protection

- 7.1 The owner of the drinking water system shall implement risk management measures, as appropriate, to manage any potential threat to drinking water that results from the operation of the drinking water system.
- 7.2 The owner of the system shall notify the Director in writing within thirty (30) days of any approved changes to an applicable source protection plan that impact the assessed threat level of a fuel oil system identified in Schedule A of drinking water works permit.
- 7.3 The notification required in condition 7.2 shall include:
 - 7.3.1 A description of the changes and their impact on the assessed threat level of the fuel oil system(s); and,
 - 7.3.2 A timeline for re-assessing the threat level and providing the results of the assessment to the Director.

Schedule D: Conditions for Relief from Regulatory Requirements

System Owner	The Corporation of the Municipality of Mississippi Mills
Licence Number	178-101
Drinking Water System Name	Mississippi Mills Drinking Water System
Licence Effective Date	November 26, 2021

As of the effective date of the Licence, no relief from regulatory requirements is authorized by the Director under section 46 of the SDWA in respect of the drinking water system.

Schedule E: Pathogen Log Removal/Inactivation Credits

System Owner	The Corporation of the Municipality of Mississippi Mills
Licence Number	178-101
Drinking Water System Name	Mississippi Mills Drinking Water System
Licence Effective Date	November 26, 2021

1.0 Primary Disinfection Pathogen Log Removal/Inactivation Credits

Municipal Well # 3

Well # 3 [GROUNDWATER]

Minimum Log Removal/ Inactivation Required	Cryptosporidium Oocysts	Giardia Cysts	Viruses
Municipal Well # 3	0	0	2

Log Removal/Inactivation Credits Assigned ^a	Cryptosporidium Oocysts	Giardia Cysts	Viruses
Chlorination [CT: Contact Tank]	-	-	2+

^a Log removal/inactivation credit assignment is based on each treatment process being fully operational and the applicable log removal/inactivation credit assignment criteria being met.

Treatment Component	Log Removal/Inactivation Credit Assignment Criteria
Chlorination	1. Sampling and testing for free chlorine residual shall be carried out by continuous monitoring equipment in the treatment process at or near a location where the intended contact time has just been completed in accordance with the Ministry's Procedure for Disinfection of Drinking Water in Ontario; and 2. At all times, CT provided shall be greater than or equal to the CT required to achieve the log removal credits assigned.
Primary Disinfection Notes	

Municipal Well # 5

Well # 5 [GROUNDWATER]

Minimum Log Removal/ Inactivation Required	Cryptosporidium Oocysts	Giardia Cysts	Viruses
Municipal Well # 5	0	0	2

Log Removal/Inactivation Credits Assigned ^a	Cryptosporidium Oocysts	Giardia Cysts	Viruses
Chlorination [CT: Contact Chamber]	-	-	2+

^a Log removal/inactivation credit assignment is based on each treatment process being fully operational and the applicable log removal/inactivation credit assignment criteria being met.

Treatment Component	Log Removal/Inactivation Credit Assignment Criteria
Chlorination	1. Sampling and testing for free chlorine residual shall be carried out by continuous monitoring equipment in the treatment process at or near a location where the intended contact time has just been completed in accordance with the Ministry's Procedure for Disinfection of Drinking Water in Ontario; and 2. At all times, CT provided shall be greater than or equal to the CT required to achieve the log removal credits assigned.
Primary Disinfection Notes	

Municipal Well # 6

Well # 6 [GROUNDWATER]

Minimum Log Removal/ Inactivation Required	Cryptosporidium Oocysts	Giardia Cysts	Viruses
Municipal Well # 6	0	0	2

Log Removal/Inactivation Credits Assigned ^a	Cryptosporidium Oocysts	Giardia Cysts	Viruses
Chlorination [CT: Contact Chamber]	-	-	2+

^a Log removal/inactivation credit assignment is based on each treatment process being fully operational and the applicable log removal/inactivation credit assignment criteria being met.

Treatment Component	Log Removal/Inactivation Credit Assignment Criteria
Chlorination	1. Sampling and testing for free chlorine residual shall be carried out by continuous monitoring equipment in the treatment process at or near a location where the intended contact time has just been completed in accordance with the Ministry's Procedure for Disinfection of Drinking Water in Ontario; and 2. At all times, CT provided shall be greater than or equal to the CT required to achieve the log removal credits assigned.
Primary Disinfection Notes	

Municipal Well # 7, 8

Well # 7 and # 8 [GROUNDWATER]

Minimum Log Removal/ Inactivation Required	Cryptosporidium Oocysts	Giardia Cysts	Viruses
Municipal Well # 7, 8	0	0	2

Log Removal/Inactivation Credits Assigned ^a	Cryptosporidium Oocysts	Giardia Cysts	Viruses
Chlorination [CT: Contact Tank]	-	-	2+

^a Log removal/inactivation credit assignment is based on each treatment process being fully operational and the applicable log removal/inactivation credit assignment criteria being met.

Treatment Component	Log Removal/Inactivation Credit Assignment Criteria
Chlorination	1. Sampling and testing for free chlorine residual shall be carried out by continuous monitoring equipment in the treatment process at or near a location where the intended contact time has just been completed in accordance with the Ministry's Procedure for Disinfection of Drinking Water in Ontario; and 2. At all times, CT provided shall be greater than or equal to the CT required to achieve the log removal credits assigned.
Primary Disinfection Notes	

APPENDIX B

LABORATORY REPORTS

C.O.C.: G 137991

REPORT No: 25-029993 - Rev. 0

Report To:

Jp2g Consultants Inc
1150 Morrison Dr.
Ottawa, ON K2H 8S9

CADUCEON Environmental Laboratories

2378 Holly Lane
Ottawa, ON K1V 7P1

Attention: Golrokh Hafezian

DATE RECEIVED: 2025-Oct-01
DATE REPORTED: 2025-Oct-08
SAMPLE MATRIX: Ground Water

CUSTOMER PROJECT: 17-6282J Almonte
P.O. NUMBER:

Analyses	Qty	Site Analyzed	Authorized	Date Analyzed	Lab Method	Reference Method
Anions (Liquid)	9	OTTAWA	PCURIEL	2025-Oct-02	A-IC-01	SM 4110B
Cond/pH/Alk Auto (Liquid)	9	OTTAWA	SBOUDREAU	2025-Oct-02	COND-02/PH-02/A LK-02	SM 2510B/4500H/ 2320B
E.Coli m-TECH Media (Liquid)	9	OTTAWA	AHIRSI	2025-Oct-02	EC-001	MECP E3371
Ammonia (Liquid)	9	KINGSTON	VHAMMOND	2025-Oct-07	NH3-001	SM 4500NH3
Orthophosphate (Liquid)	9	KINGSTON	VHAMMOND	2025-Oct-03	DRP-002	EPA 365.2
Total Coliforms (m-Endo Media)	9	OTTAWA	AHIRSI	2025-Oct-02	TC-001	SM 9222B
TP & TKN (Liquid)	9	KINGSTON	YLIEN	2025-Oct-07	TPTKN-001	MECP E3516.2

R.L. = Reporting Limit

NC = Not Calculated

Test methods may be modified from specified reference method unless indicated by an *



Michelle Dubien
Data Specialist

CADUCEON Environmental Laboratories Certificate of Analysis

Final Report

REPORT No: 25-029993 - Rev. 0

			Client I.D.	MW1B	MW1A	MW2A	MW2B	MW3A
			Sample I.D.	25-029993-1	25-029993-2	25-029993-3	25-029993-4	25-029993-5
			Date Collected	2025-10-01	2025-10-01	2025-10-01	2025-10-01	2025-10-01
Parameter	Units	R.L.		-	-	-	-	-
Total Coliform	CFU/100mL	1		970	<2	0	0	1
Background	CFU/100mL	1		>2000	2	0	2	7
E coli	CFU/100mL	1		0	0	0	0	0
Alkalinity(CaCO3) to pH4.5	mg/L	5		368	363	294	452	297
TDS (Calc. from Cond.) (Calculated)	mg/L	3		613	633	524	759	518
Conductivity @25°C	uS/cm	1		1140	1180	983	1400	973
pH @25°C	pH units	-		7.86	7.83	7.87	7.69	7.97
Chloride	mg/L	0.5		134	137	124	143	121
Nitrate (N)	mg/L	0.05		<0.05	<0.05	1.47	<0.05	0.52
Nitrite (N)	mg/L	0.05		<0.05	<0.05	<0.05	<0.05	<0.05
Phosphorus (Total)	mg/L	0.01		0.38	0.04	0.04	0.01	<0.01
Total Kjeldahl Nitrogen	mg/L	0.1		1.8	0.3	0.1	0.3	0.1
Ammonia (N)-Total (NH3+NH4)	mg/L	0.05		0.50	0.05	<0.05	<0.05	<0.05
o-Phosphate (P)	mg/L	0.002		0.028	<0.002	0.013	0.004	0.002
pH (Client Data)	pH units	-		7.58	7.43	7.43	7.16	7.93
Temperature (Client Data)	°C	-		9.9	9.8	9.7	9.2	14.7



**Michelle Dubien
Data Specialist**

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Final Report

REPORT No: 25-029993 - Rev. 0

Client I.D.			MW3B	Well #5	Well #6	Dup #1
Sample I.D.			25-029993-6	25-029993-7	25-029993-8	25-029993-9
Date Collected			2025-10-01	2025-10-01	2025-10-01	2025-10-01
Parameter	Units	R.L.	-	-	-	-
Total Coliform	CFU/100mL	1	0	0	1	2
Background	CFU/100mL	1	3	0	11	13
E coli	CFU/100mL	1	0	0	0	0
Alkalinity(CaCO3) to pH4.5	mg/L	5	300	327	290	298
TDS (Calc. from Cond.) (Calculated)	mg/L	3	524	533	549	519
Conductivity @25°C	uS/cm	1	983	999	1030	975
pH @25°C	pH units	-	7.88	8.03	8.01	8.03
Chloride	mg/L	0.5	121	114	103	121
Nitrate (N)	mg/L	0.05	0.87	0.16	0.96	0.51
Nitrite (N)	mg/L	0.05	<0.05	<0.05	<0.05	<0.05
Phosphorus (Total)	mg/L	0.01	0.01	0.02	0.02	0.02
Total Kjeldahl Nitrogen	mg/L	0.1	0.2	0.2	0.2	0.2
Ammonia (N)-Total (NH3+NH4)	mg/L	0.05	<0.05	<0.05	<0.05	<0.05
o-Phosphate (P)	mg/L	0.002	0.004	<0.002	<0.002	0.002
pH (Client Data)	pH units	-	7.34	7.83	7.54	
Temperature (Client Data)	°C	-	12.4	11.3	10.4	



Michelle Dubien
Data Specialist

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C.O.C.: G 138089

REPORT No: 25-010042 - Rev. 0

Report To:

Jp2g Consultants Inc
1150 Morrison Dr.
Ottawa, ON K2H 8S9

CADUCEON Environmental Laboratories

2378 Holly Lane
Ottawa, ON K1V 7P1

Attention: Abdul Kader

DATE RECEIVED: 2025-Apr-16
DATE REPORTED: 2025-Apr-30
SAMPLE MATRIX: Ground Water

CUSTOMER PROJECT: 17-62821 Almonte
P.O. NUMBER:

Analyses	Qty	Site Analyzed	Authorized	Date Analyzed	Lab Method	Reference Method
Anions (Liquid)	9	OTTAWA	LMACGREGOR	2025-Apr-17	A-IC-01	SM 4110B
Cond/pH/Alk Auto (Liquid)	9	OTTAWA	SBOUDREAU	2025-Apr-21	COND-02/PH-02/A LK-02	SM 2510B/4500H/ 2320B
E.Coli m-TECH Media (Liquid)	9	OTTAWA	AHIRSI	2025-Apr-16	EC-001	MECP E3371
Ammonia & o-Phosphate (Liquid)	9	KINGSTON	DCASSIDY	2025-Apr-29	NH3-001	SM 4500NH3
Total Coliforms (m-Endo Media)	9	OTTAWA	AHIRSI	2025-Apr-16	TC-001	SM 9222B
TP & TKN (Liquid)	9	KINGSTON	YLIEN	2025-Apr-29	TPTKN-001	MECP E3516.2

R.L. = Reporting Limit

NC = Not Calculated

Test methods may be modified from specified reference method unless indicated by an *



Michelle Dubien
Data Specialist

CADUCEON Environmental Laboratories Certificate of Analysis

Final Report

REPORT No: 25-010042 - Rev. 0

Client I.D.			MW1A	MW1B	MW2A	MW2B	MW3A
Sample I.D.			25-010042-1	25-010042-2	25-010042-3	25-010042-4	25-010042-5
Date Collected			2025-04-16	2025-04-16	2025-04-16	2025-04-16	2025-04-16
Parameter	Units	R.L.	-	-	-	-	-
Total Coliform	CFU/100mL	1	0	0	1	1	0
Background	CFU/100mL	1	0	41	2	0	10
E coli	CFU/100mL	1	0	0	0	0	0
Alkalinity(CaCO3) to pH4.5	mg/L	5	320	322	296	283	280
TDS (Calc. from Cond.)	mg/L	3	531	519	491	464	504
Conductivity @25°C	uS/cm	1	995	975	925	878	948
pH @25°C	pH units	-	7.84	7.85	7.90	8.20	8.13
Chloride	mg/L	0.5	115	112	104	92.0	110
Nitrate (N)	mg/L	0.05	0.37	0.58	1.73	0.63	1.23
Nitrite (N)	mg/L	0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Phosphorus (Total)	mg/L	0.01	0.07	<0.01	0.04	0.01	<0.01
Total Kjeldahl Nitrogen	mg/L	0.1	0.3	0.2	0.2	0.2	0.2
Ammonia (N)-Total (NH3+NH4)	mg/L	0.05	0.07	<0.05	<0.05	<0.05	<0.05
o-Phosphate (P)	mg/L	0.002	0.002	<0.002	0.005	<0.002	<0.002



Michelle Dubien
Data Specialist

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CADUCEON Environmental Laboratories Certificate of Analysis

Final Report

REPORT No: 25-010042 - Rev. 0

Client I.D.			MW3B	Well #5	Well #6	Dup #1
Sample I.D.			25-010042-6	25-010042-7	25-010042-8	25-010042-9
Date Collected			2025-04-16	2025-04-16	2025-04-16	2025-04-16
Parameter	Units	R.L.	-	-	-	-
Total Coliform	CFU/100mL	1	0	0	0	1
Background	CFU/100mL	1	0	0	0	5
E coli	CFU/100mL	1	0	0	0	0
Alkalinity(CaCO3) to pH4.5	mg/L	5	281	317	279	305
TDS (Calc. from Cond.)	mg/L	3	502	518	470	508
Conductivity @25°C	uS/cm	1	944	972	887	955
pH @25°C	pH units	-	8.00	8.07	8.15	8.05
Chloride	mg/L	0.5	108	108	55.1	111
Nitrate (N)	mg/L	0.05	1.57	0.38	0.50	1.16
Nitrite (N)	mg/L	0.05	<0.05	<0.05	<0.05	<0.05
Phosphorus (Total)	mg/L	0.01	<0.01	<0.01	<0.01	0.02
Total Kjeldahl Nitrogen	mg/L	0.1	0.2	0.2	0.1	0.2
Ammonia (N)-Total (NH3+NH4)	mg/L	0.05	<0.05	<0.05	<0.05	<0.05
o-Phosphate (P)	mg/L	0.002	<0.002	<0.002	<0.002	0.004



**Michelle Dubien
Data Specialist**

The analytical results reported herein refer to the samples as received and relate only to the items tested. Reproduction of this analytical report in full or in part is prohibited without prior consent from Caduceon Environmental Laboratories.

Appendix C – Annual Well Level Monitoring Report 2025

2025 Annual Monitoring Report Well #3, #5, #6, #7 and #8 Mississippi Mills, Ontario

Revision: 0 (Final)

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Client:	Ontario Clean Water Agency	
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1 BACKGROUND

Geofirma Engineering Ltd. was retained by the Ontario Clean Water Agency (OCWA) to complete the 2025 Annual Monitoring Report for the Mississippi Mills Municipal Wells, including Well #3, Well #5, Well #6, Well #7, and Well #8.

The following report has been prepared in accordance with Section 4 of the Amended Permit to Take Water (Groundwater), issued to The Corporation of the Town of Mississippi Mills. Specifically, this report provides an analysis, interpretation, and summary of the data collected under the monitoring program for the municipal well cluster.

2 PERMIT TO TAKE WATER

Water taking is authorized in accordance with Ontario Ministry of the Environment, Conservation and Parks (MECP) Permit to Take Water (PTTW) 8175-AQPHA8 issued on September 8, 2017. As outlined in the Permit to Take Water document, water taking is for the purpose of municipal water supply and is authorized for 24 hours per day and 365 days per year. The maximum permitted water taking is summarized in Table 1.

Table 1 Maximum Water Taking - Mississippi Mills Municipal Wells

Source Name	Max. Taken per Minute (litres)	Max. Taken per Day (litres)
Well #3	580	835,200
Well #5	568	817,920
Well #6	1,360	1,958,400
Well #7	2,682	3,862,080
Well #8	2,682	3,862,080

3 SUMMARY OF WATER LEVELS AND WATER TAKING

A review of the available water level records and water taking information from each municipal well have been provided by the OCWA (via email). Water taking is discussed relative to the amount of taking authorized under the applicable Permit to Take Water, Table A, as summarized above. Water levels are presented as a percentage of the operational capacity, with 100% representing the maximum available drawdown for water taking (i.e. water level at static conditions).

3.1 Well #3

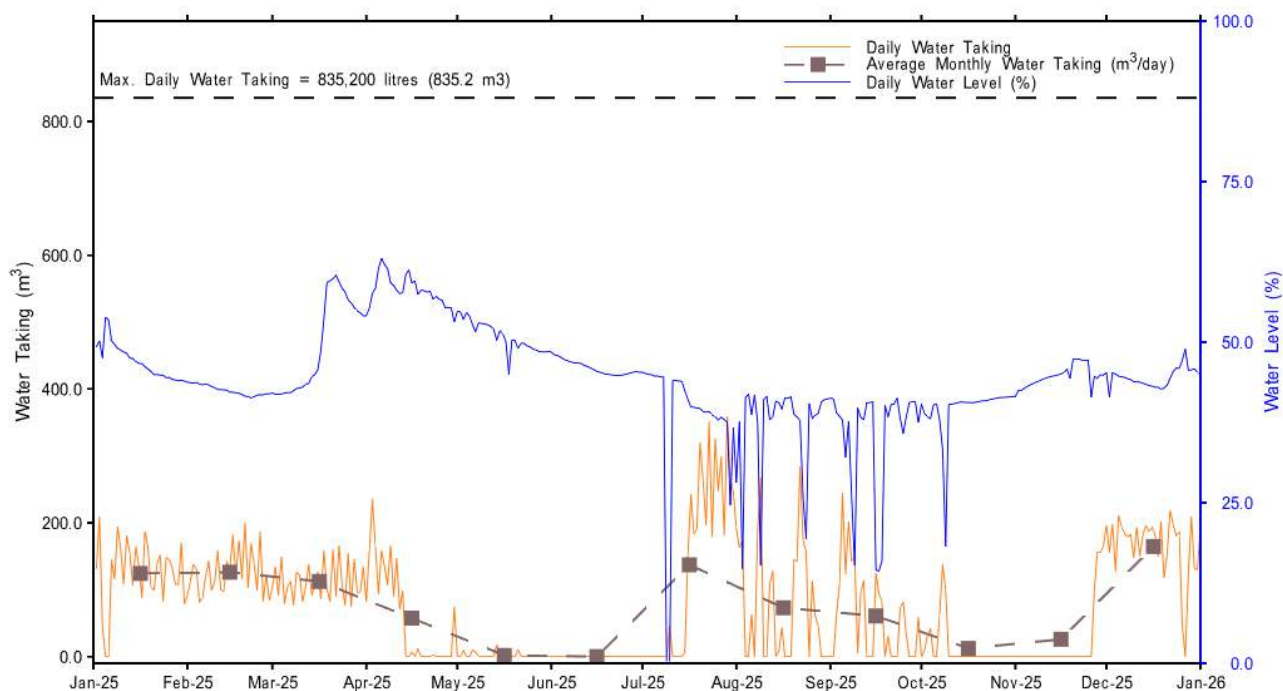
A summary of the average and maximum daily water taking from Well #3 during 2025 is summarized in Table 2. The maximum daily water taking of 359.3 m³ is less than the maximum allowable under the PTTW of 835.2 m³ and was reported on July 28, 2025. The maximum rate of water taking was reported on July 9, 2025 at a rate of 551.5 L/min, which is below the maximum allowable rate of 580 L/min.

Table 2 Summary of Water Taking, Well #3

Month	Average Daily Water Taking (m ³)	Maximum Daily Water Taking (m ³)
January	124.3	208.6
February	126.1	199.9
March	111.6	166.2
April	57.4	234.0
May	1.8	18.5
June	0.0	0.0
July	137.1	359.3
August	72.9	283.6
September	60.8	243.2
October	12.3	137.7
November	25.8	196.8
December	164.6	218.8

Figure 1 presents water taking relative to the maximum allowable daily water taking amount, compared to water levels in Well #3.

Figure 1 Daily water taking (raw and average) and water levels, Well #3



3.2 Well #5

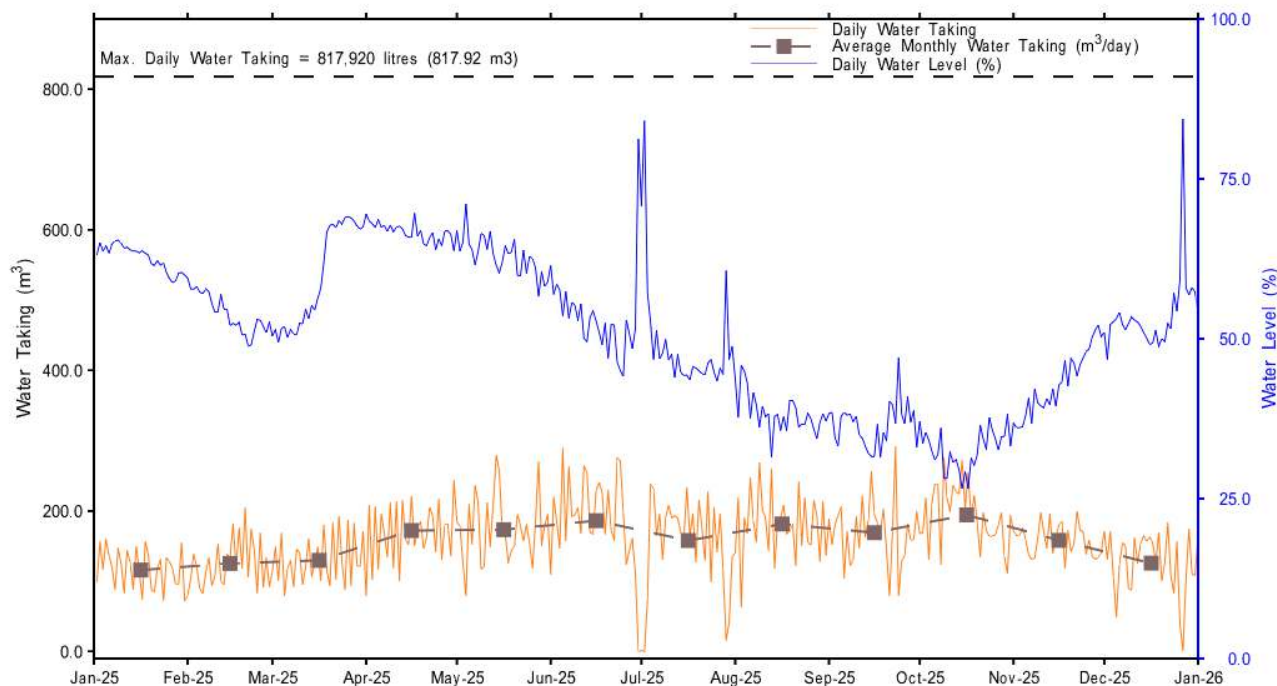
A summary of the average and maximum daily water taking from Well #5 during 2025 is summarized in Table 3. The maximum daily water taking of 291.1 m³ is less than the maximum allowable under the PTTW of 817.92 m³ and was reported on September 22, 2025. The maximum rate of water taking was reported on December 15, 2025 at 459.3 L/min, which does not exceed the maximum allowable rate of 568 L/min.

Table 3 Summary of Water Taking, Well #5

Month	Average Daily Water Taking (m ³)	Maximum Daily Water Taking (m ³)
January	115.9	160.0
February	125.3	204.9
March	129.7	192.8
April	172.1	243.9
May	173.37	279.7
June	186.1	288.9
July	157.9	238.4
August	181.4	268.6
September	169.1	291.0
October	194.4	274.9
November	158.2	200.2
December	125.7	183.0

Figure 2 presents water taking relative to the maximum allowable daily water taking amount, compared to water levels in Well #5.

Figure 2 Daily water taking (raw and average) and water levels, Well #5.



3.3 Well #6

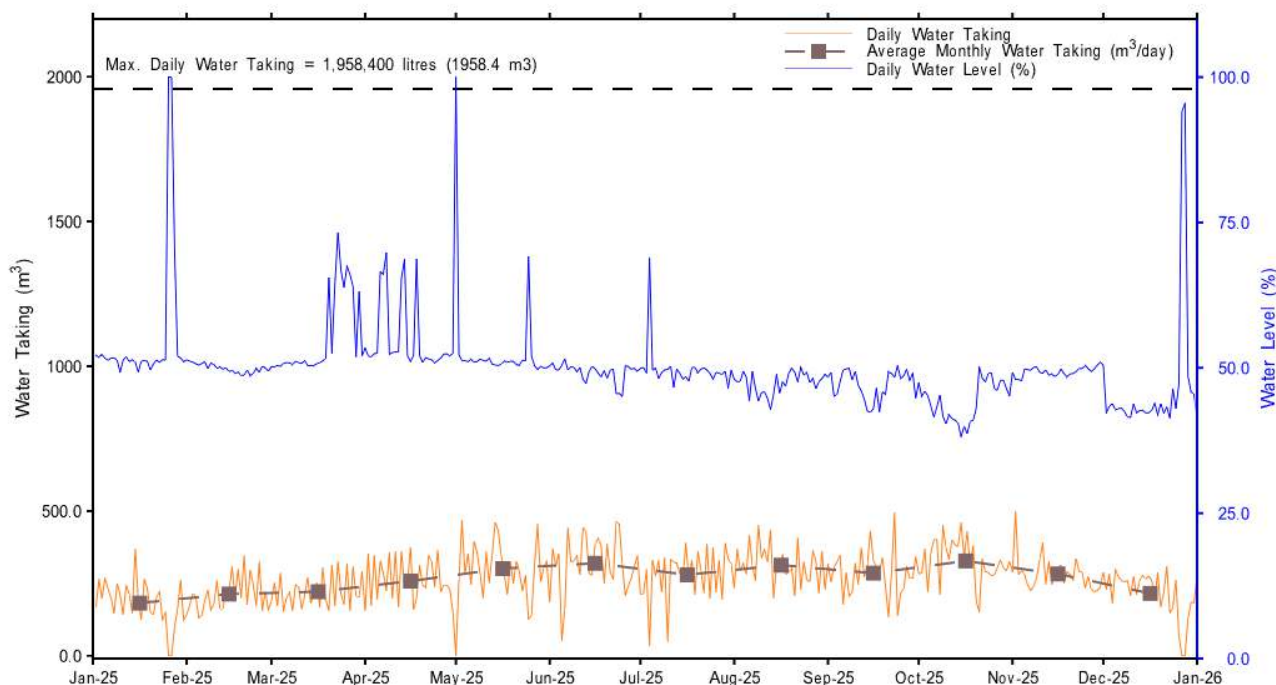
A summary of the average and maximum daily water taking from Well #6 during 2025 is summarized in Table 4. The maximum daily water taking of 498.9 m³ is less than the maximum allowable under the PTTW of 1958.4 m³ and was reported on November 1, 2025. The maximum rate of water taking was reported on October 21, 2025 at 670.0 L/min, less than the maximum allowable of 1360 L/min.

Table 4 Summary of Water Taking, Well #6

Month	Average Daily Water Taking (m ³)	Maximum Daily Water Taking (m ³)
January	181.8	369.4
February	212.6	345.7
March	221.1	327.5
April	257.6	374.5
May	300.8	465.0
June	319.2	463.8
July	279.3	389.2
August	312.9	451.7
September	284.9	493.3
October	327.0	460.0
November	282.3	498.9
December	214.9	308.5

Figure 3 presents water taking relative to the maximum allowable daily water taking amount, compared to water levels in Well #6.

Figure 3 Daily water taking (raw and average) and water levels, Well #6



3.4 Well #7

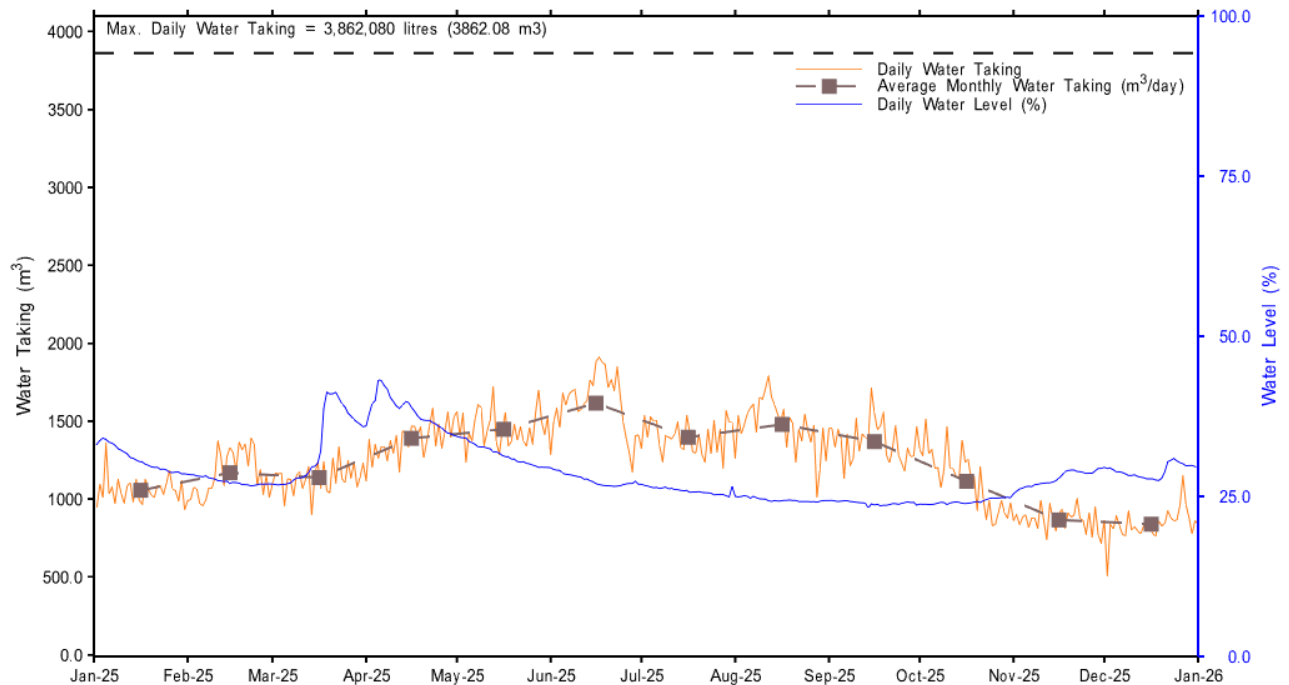
A summary of the average and maximum daily water taking from Well #7 during 2025 is summarized in Table 5. The maximum daily water taking of 1910.7 m³ is less than the maximum allowable under the PTTW of 3862.08 m³ and was reported on June 16, 2025. The maximum rate of water taking was reported on June 24, 2025 at 1850.2 L/min, which does not exceed the maximum allowable rate of 2682 L/min.

Table 5 Summary of Water Taking, Well #7

Month	Average Daily Water Taking (m ³)	Maximum Daily Water Taking (m ³)
January	1056.2	1356.7
February	1168.5	1391.4
March	1137.7	1338.0
April	1389.3	1583.9
May	1448.0	1718.4
June	1615.6	1910.7
July	1396.5	1569.7
August	1479.1	1791.5
September	1368.9	1709.8
October	1114.0	1516.4
November	865.9	1006.4
December	839.2	1150.13

Figure 4 presents water taking relative to the maximum allowable daily water taking amount, compared to water levels in Well #7.

Figure 4 Daily water taking (raw and average) and water levels, Well #7.



3.5 Well #8

A summary of the average and maximum daily water taking from Well #8 during 2025 is summarized in Table 6. The maximum daily water taking of 1904.4 m³ is less than the maximum allowable under the PTTW of 3862.08 m³ and was reported on June 16, 2025. The maximum rate of water taking was reported on November 26, 2025 at 2460.5 L/min, less than the maximum allowable of 2682 L/min.

Table 6 Summary of Water Taking, Well #8

Month	Average Daily Water Taking (m3)	Maximum Daily Water Taking (m3)
January	1039.6	1356.7
February	1151.6	1375.7
March	1127.7	1324.1
April	1371.1	1572.0
May	1434.4	1742.2
June	1603.4	1904.4
July	1385.5	1557.0
August	1487.4	1785.1
September	1356.3	1700.8
October	1100.5	1503.6
November	854.1	993.8
December	839.4	1143.2

Figure 5 presents water taking relative to the maximum allowable daily water taking amount, compared to water levels in Well #8.

Figure 5 Daily water taking (raw and average) and water levels, Well #8.



4 DISCUSSION

During 2025 there were no exceedances of the maximum daily water taking limits in any of the wells. Water levels within each municipal well fluctuate as demand increases or decreases, but on average (annually) the water levels are within 28% (Well #8) to 51% (Well #5) of the operating capacity.

There were no exceedances of the maximum allowable water taking per minute set out in Table A of the Permit to Take Water issued on September 8, 2017.

There were no compliance issues noted in the data collected under the monitoring program.

5 LIMITATIONS AND CLOSURE

This report has been prepared for the exclusive use of the Ontario Clean Water Agency (OCWA). Data provided by the OCWA is assumed to represent actual water taking and groundwater conditions.

Geofirma Engineering Ltd. has exercised professional judgment in interpreting and analyzing the information and in formulating recommendations. The mandate at Geofirma is to perform the given tasks within guidelines prescribed by the client and with the quality and due diligence expected within the profession. No other warranty or representation expressed or implied, as to the accuracy of the information or recommendations is included or intended in this report.

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