

2023 SCHEDULE 22 SUMMARY REPORT

MOOREFIELD
DRINKING WATER
SYSTEM



For the period of
January 1st, 2023 to December 31st, 2023

Prepared for the Corporation of the Township of Mapleton by the Ontario Clean Water
Agency



This report was prepared in accordance with the requirements of [O.Reg 170/03, Schedule 22, Summary Reports for Municipalities](#) for the following system and reporting period:

Drinking-Water System Number:	260069732
Drinking-Water System Name:	Moorefield Drinking Water System
Drinking-Water System Owner:	The Corporation of the Township of Mapleton
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1, 2023 – December 31, 2023

1. Issue(s) of Non-Compliance

A Ministry of Environment, Conservation and Parks (MECP) Drinking Water System Inspection was conducted on June 1, 2023 for the period covering July 12, 2022 to June 22, 2023. On July 11, 2023 the Inspection Report was issued and an Inspection Summary Rating Record (IRR) of 100% was received.

The following is a summary of non-compliances noted in the MECP Inspection Report, as well as the duration and the measures that were taken to correct the non-compliance. If any self-reported non-compliances were included in the inspection report, they will be noted in Table 1.

Table 1. Non-Compliances and Corrective Actions noted in the 2022/2023 MECP Inspection Report

Non-Compliance(s)	Duration	Required Actions & Corrective Actions
N/A	N/A	N/A

The following table (Table 2) is a summary of any incidents that the Operating Authority interpreted as instances where any requirements of the Act, the regulations, the system’s approval, drinking water works permit (DWWP), municipal drinking water licence (MDWL), and any orders applicable were not met. The Operating Authority reported the following incidents to the MECP and confirmation of whether the incidents are considered non-compliances are noted in the MECP Inspection Report and included in Table 1.

Table 2. Self-Reported Incidents and Corrective Actions for the Reporting Period

Incident	Duration	Corrective Actions
N/A	N/A	N/A

For information on any Adverse Water Quality Incident(s) that may have occurred during the reporting period, please refer to the Drayton Drinking Water System Annual Report (Section 11).

2. Assessment of Flowrates and Quantity of Water Supplied

The following tables (Table 3 to 7) summarize the quantities and flowrates of water supplied during the reporting period, including monthly averages and maximum daily flows as well as a comparison to the rated capacity and flowrates approved in the system’s approval, DWWP or MDWL.

As required by the MDWL, regulatory flow measuring devices are checked/verified and where necessary calibrated. These checks/verifications/calibrations are performed annually by a third party to ensure the flow measuring devices are within acceptable deviation limits.

2.1 Treated Water

Municipal Drinking Water License (MDWL):	105-102 (Issue Number: 3)
Allowable Rated Capacity:	1,555 m ³ /day
Allowable Flowrate into Treatment System:	Not listed in MDWL

As per the MDWL, the maximum daily volume of treated water that flows from the treatment subsystem to the distribution system shall not exceed the listed rated capacity. However, the MDWL allows a system to be operated temporarily at a maximum daily volume and/or a maximum flowrate above the values set out in the MDWL for the purposes of fighting a large fire or for the maintenance of the drinking water system.

Table 3. Treated Water Annual and Monthly Average and Maximum Flows with Comparison to Rated Capacity and Total Volume for 2023

Treated Water Flow					
Timeframe	Average Flow (m ³ /day)	Percent of Rated Capacity	Maximum Flow (m ³ /day)	Percent of Rated Capacity	Total Volume (m ³)
January	136.62	8.79%	207.49	13.34%	4235.30
February	128.02	8.23%	171.14	11.01%	3584.64
March	128.25	8.25%	186.05	11.96%	3975.80
April	125.50	8.07%	171.84	11.05%	3765.01
May	131.86	8.48%	193.22	12.43%	4087.65
June	134.09	8.62%	184.38	11.86%	4022.61
July	118.45	7.62%	168.77	10.85%	3671.87
August	127.41	8.19%	203.42	13.08%	3949.65
September	120.30	7.74%	185.33	11.92%	3609.05
October	120.45	7.75%	182.27	11.72%	3733.91
November	131.10	8.43%	185.47	11.93%	3670.71
December	129.33	8.32%	183.81	11.82%	4009.25
2023	127.61	8.21%	207.49	13.34%	46315.44

A review of flow information for the reporting period indicates that the drinking water system operated within the rated capacity specified in the MDWL, for the maximum treated volume of treated water that flows from the treatment subsystem to the distribution system.

The applicable MDWL for the reporting period did not list a maximum allowable limit for the flowrate of water that flows into a treatment subsystem.

2.2 Raw Water

Permit to Take Water Number (PTTW):	1401-9KXJW5
Allowable Maximum Raw Water Volume - Well #1:	1,310 m ³ /day
Allowable Maximum Raw Water Flowrate - Well #1:	910 L/min (15.16 L/sec)
Allowable Maximum Volume of Raw Water - Well #2:	1,310 m ³ /day
Allowable Maximum Raw Water Flowrate – Well #2:	910 L/min (15.16 L/sec)

As per the PTTW, water shall only be taken from the specified source(s) and at the rates and amounts taken as specified in the permit.

Table 4. Raw Water (Well #1) Monthly Average, Maximum Flow and Total Volume for 2023

Raw Water Flow – Well #1					
Timeframe	Average Flow (m ³ /day)	Percent of Allowable Volume	Maximum Flow (m ³ /day)	Percent of Allowable Volume	Total Volume (m ³)
January	63.19	4.82%	122.21	9.33%	1958.99
February	62.01	4.73%	118.37	9.04%	1736.42
March	53.40	4.08%	61.06	4.66%	640.80
April	57.91	4.42%	77.86	5.94%	1737.44
May	58.30	4.45%	116.38	8.88%	1807.30
June	62.64	4.78%	127.31	9.72%	1879.35
July	57.68	4.40%	118.69	9.06%	1672.81
August	64.92	4.96%	136.38	10.41%	1882.59
September	62.28	4.75%	118.21	9.02%	1743.84
October	66.18	5.05%	124.83	9.53%	1786.99
November	65.10	4.97%	130.85	9.99%	1757.73
December	58.50	4.47%	109.89	8.39%	1813.46
2023	61.01	4.66%	136.38	10.41%	20417.71

A review of flow information for the reporting period indicates that the system operated within the PTTW's maximum allowable daily raw water volume for Well #1.

Table 5. Raw Water (Well #1) Annual and Monthly Average and Maximum Flowrates for 2023

Raw Water Flowrate – Well #1		
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)
January	10.25	10.70
February	10.25	10.60
March	10.32	10.60

Raw Water Flowrate – Well #1		
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)
April	10.34	10.70
May	10.33	10.70
June	10.31	10.90
July	10.40	11.00
August	10.60	11.20
September	10.60	11.40
October	10.59	11.30
November	10.53	11.95
December	10.55	10.66
2023	10.43	11.95

A review of flow information for the reporting period indicates that the system operated within the PTTW’s maximum allowable raw water flowrate for Well #1.

Table 6. Raw Water (Well #2) Monthly Average, Maximum Flow and Total Volume for 2023

Raw Water Flow – Well #2					
Timeframe	Average Flow (m³/day)	Percent of Allowable Volume	Maximum Flow (m³/day)	Percent of Allowable Volume	Total Volume (m³)
January	72.28	5.52%	139.74	10.67%	2240.79
February	67.02	5.12%	128.16	9.78%	1876.45
March	105.71	8.07%	200.96	15.34%	3277.02
April	68.25	5.21%	126.08	9.62%	2047.39
May	72.77	5.55%	126.53	9.66%	2255.74
June	72.27	5.52%	137.28	10.48%	2168.00
July	80.73	6.16%	144.86	11.06%	1937.54
August	68.90	5.26%	139.81	10.67%	2067.14
September	59.72	4.56%	123.26	9.41%	1791.66
October	68.96	5.26%	142.02	10.84%	2068.90
November	74.57	5.69%	127.74	9.75%	1938.74
December	73.05	5.58%	150.18	11.46%	2191.44
2023	73.69	5.63%	200.96	15.34%	25860.81

A review of flow information for the reporting period indicates that the system operated within the PTTW’s maximum allowable daily raw water volume for Well #2.

Table 7. Raw Water (Well #2) Annual and Monthly Average and Maximum Flowrates for 2023

Raw Water Flowrate – Well #2		
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)
January	6.75	6.87
February	6.81	6.98
March	6.84	6.95
April	6.91	7.00
May	6.82	6.99
June	6.89	7.00
July	6.88	6.98
August	6.83	7.00
September	6.63	7.24
October	6.47	6.87
November	6.39	6.86
December	6.51	6.65
2023	6.73	7.24

A review of flow information for the reporting period indicates that the system operated within the PTTW's the maximum allowable raw water flowrate for Well #2.