

2022 SCHEDULE 22 SUMMARY REPORT

MOOREFIELD
DRINKING WATER
SYSTEM



For the period of
January 1st, 2022 to December 31st, 2022

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, 2022 – December 31, 2022

1. Issue(s) of Non-Compliance

A Ministry of Environment, Conservation and Parks (MECP) Drinking Water System Inspection was conducted on July 13, 2022 for the period covering August 11, 2021 to July 12, 2022. On August 9, 2022 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 2021/2022 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 2022

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	120.27	7.73%	165.70	10.66%	3728.47
February	116.59	7.50%	180.54	11.61%	3264.52
March	109.13	7.02%	161.60	10.39%	3382.91
April	111.65	7.18%	159.04	10.23%	3349.63
May	115.86	7.45%	151.17	9.72%	3591.66
June	113.52	7.30%	170.37	10.96%	3405.59
July	108.77	6.99%	156.03	10.03%	3371.89
August	106.36	6.84%	188.42	12.12%	3297.28
September	103.41	6.65%	152.51	9.81%	3102.22
October	108.61	6.98%	142.72	9.18%	3366.78
November	124.20	7.99%	262.30	16.87%	3725.98
December	128.39	8.26%	192.13	10.66%	3980.10
2022	113.90	7.32%	262.30	16.87%	41567.04

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:	15.16 L/sec
Allowable Maximum Volume of Raw Water - Well #2:	1,310.16 m ³ /day
Allowable Maximum Raw Water Flowrate – Well #2:	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 2022

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	59.23	4.52%	135.01	10.31%	1776.96
February	54.65	4.17%	63.84	4.87%	1475.42
March	56.21	4.29%	68.03	5.19%	1630.05
April	58.56	4.47%	69.34	5.29%	1581.25
May	62.41	4.76%	121.92	9.31%	1684.99
June	59.58	4.55%	117.18	8.95%	1608.61
July	57.21	4.37%	70.14	5.35%	1544.61
August	57.42	4.38%	125.15	9.55%	1607.84
September	55.10	4.21%	69.79	5.33%	1542.82
October	60.27	4.60%	115.30	8.80%	1627.20
November	56.61	4.32%	120.48	9.20%	1698.16
December	56.48	4.31%	119.84	9.15%	1750.82
2022	57.81	4.41%	135.01	10.31%	19528.72

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 2022

Raw Water Flowrate – Well #1		
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)
January	10.35	10.70
February	10.31	10.70
March	10.34	10.80

Raw Water Flowrate – Well #1		
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)
April	10.38	10.80
May	10.38	10.70
June	10.31	10.70
July	10.27	10.70
August	10.21	10.60
September	10.24	10.60
October	10.26	10.60
November	10.20	10.60
December	9.88	10.50
2022	10.26	10.80

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 2022

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	66.39	5.07%	132.35	10.10%	1991.58
February	67.95	5.19%	128.58	9.81%	1766.82
March	63.38	4.84%	133.41	10.18%	1711.17
April	61.61	4.70%	74.98	5.72%	1786.59
May	61.51	4.70%	76.93	5.87%	1906.85
June	61.19	4.67%	106.43	8.12%	1774.40
July	62.52	4.77%	116.58	8.90%	1812.99
August	62.78	4.79%	101.28	7.73%	1694.98
September	58.37	4.46%	132.67	10.13%	1517.64
October	61.47	4.69%	119.39	9.11%	1782.75
November	64.06	4.89%	132.61	10.12%	1921.92
December	70.76	5.40%	144.77	11.05%	2193.57
2022	63.50	4.85%	144.77	11.05%	21861.25

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 2022

Raw Water Flowrate – Well #2		
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)
January	6.85	6.99
February	6.84	7.00
March	6.91	7.00
April	6.80	7.01
May	6.75	7.00
June	6.61	7.00
July	6.80	6.98
August	6.63	6.90
September	6.66	6.90
October	6.69	6.87
November	6.08	6.83
December	6.70	6.80
2022	6.69	7.01

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.