

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





Schedule 22 Summary Report: January 1, 2022 to December 31, 2022

Township of Mapleton: Drayton Drinking Water System

This report was prepared in accordance with the requirements of <u>O.Req 170/03, Schedule 22, Summary Reports for Municipalities</u> for the following system and reporting period:

Drinking-Water System Number:
Drinking-Water System Name:
Drinking-Water System Owner:
Drinking-Water System Category:
Period being reported:

220004064
Drayton Drinking Water System
The Corporation of the Township of Mapleton
Large Municipal Residential
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 June 15, 2022 for the period covering August 10, 2021 to June 14, 2022. On July 11, 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 a 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 8) 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.

Schedule 22 Summary Report: January 1, 2022 to December 31, 2022

Township of Mapleton: Drayton Drinking Water System

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):	105-101 (Issue Number: 3)	
Allowable Rated Capacity:	3,928 m³/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 (m³/day)	Percent of Rated Capacity	Maximum Flow (m³/day)	Percent of Rated Capacity	Total Volume (m³)
January	455.44	11.59%	514.54	13.10%	14118.72
February	431.93	11.00%	500.87	12.75%	12094.15
March	440.72	11.22%	505.15	12.86%	13662.26
April	530.94	13.52%	610.57	15.54%	15928.33
May	479.24	12.20%	588.42	14.98%	14856.39
June	490.41	12.48%	654.17	16.65%	14712.15
July	540.95	13.77%	1074.81	27.36%	16769.43
August	607.20	15.46%	916.36	23.33%	18823.20
September	510.81	13.00%	1344.60	34.23%	15324.17
October	416.28	10.60%	511.71	13.03%	12904.55
November	383.97	9.78%	450.44	11.47%	11519.13
December	427.28	10.88%	1003.97	25.56%	13245.74
2022	476.26	12.12%	1344.60	34.23%	173958.22

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.

Schedule 22 Summary Report: January 1, 2022 to December 31, 2022

Township of Mapleton: Drayton Drinking Water System

Table 4. Treated Water Annual and Monthly Average and Maximum Flowrates for 2022

Treated Water Flowrate						
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)				
January	12.03	14.30				
February	14.33	30.30				
March	14.82	39.40				
April	18.04	47.00				
May	18.74	36.00				
June	20.66	38.60				
July	25.20	59.80				
August	26.98	52.30				
September	20.78	49.50				
October	18.77	38.40				
November	16.32	39.60				
December	14.94	42.20				
2022	18.49	59.80				

## 2.2 Raw Water

Permit to Take Water Number (PTTW):	0758-98MLKT
Allowable Maximum Raw Water Volume - Well #1:	1,964.16 m³/day
Allowable Maximum Raw Water Flowrate - Well #1:	22.73 L/sec
Allowable Maximum Volume of Raw Water - Well #2:	1,964.16 m³/day
Allowable Maximum Raw Water Flowrate – Well #2:	22.73 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 5. Raw Water (Well #1) Monthly Average, Maximum Flow and Total Volume for 2022

Raw Water Flow – Well #1					
Timeframe	Average Flow (m³/day)	Percent of Allowable Volume	Maximum Flow (m³/day)	Percent of Allowable Volume	Total Volume (m³)
January	438.47	22.32%	498.29	25.37%	13592.46
February	47.64	2.43%	214.46	10.92%	285.85
March	427.90	21.79%	508.44	25.89%	13264.93
April	194.71	9.91%	611.65	31.14%	5841.38
May	259.00	13.19%	581.40	29.60%	8028.95
June	238.86	12.16%	641.76	32.67%	7165.92
July	430.55	21.92%	640.05	32.59%	7319.42

Schedule 22 Summary Report: January 1, 2022 to December 31, 2022

Township of Mapleton: Drayton Drinking Water System

Raw Water Flow – Well #1					
Timeframe	Average Flow (m³/day)	Percent of Allowable Volume	Maximum Flow (m³/day)	Percent of Allowable Volume	Total Volume (m³)
August	196.18	9.99%	811.05	41.29%	6081.44
September	277.98	14.15%	543.81	27.69%	8339.38
October	209.50	10.67%	510.19	25.97%	6494.35
November	272.02	13.85%	453.54	23.09%	8160.47
December	354.82	18.06%	1000.05	50.91%	10999.45
2022	278.97	14.02%	1000.05	50.91%	95574.00

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 6. 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	21.85	22.30				
February	18.50	22.70				
March	21.94	22.30				
April	20.46	22.00				
May	13.79	22.30				
June	11.50	21.80				
July	20.54	21.90				
August	9.84	22.60				
September	15.32	22.00				
October	12.25	21.40				
November	16.23	21.30				
December	17.79	21.40				
2022	16.21	22.70				

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 7. 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	38.83	1.98%	272.65	13.88%	388.26

Schedule 22 Summary Report: January 1, 2022 to December 31, 2022

Township of Mapleton: Drayton Drinking Water System

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)
February	438.28	22.31%	520.03	26.48%	12271.96
March	9.22	0.47%	232.90	11.86%	285.84
April	343.92	17.51%	605.50	30.83%	10317.54
May	224.12	11.41%	558.67	28.44%	6947.65
June	256.86	13.08%	549.79	27.99%	7705.65
July	452.04	23.01%	649.92	33.09%	9040.78
August	427.88	21.78%	732.14	37.27%	13264.13
September	247.77	12.61%	1077.04	54.83%	7433.18
October	211.66	10.78%	529.60	26.96%	6561.48
November	114.94	5.85%	448.93	22.86%	3448.15
December	56.63	2.88%	458.44	23.34%	1755.51
2022	235.18	11.97%	1077.04	54.83%	79420.13

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 8. Raw Water (Well #2) Annual and Monthly Average and Maximum Flowrates for 2022

Raw Water Flowrate – Well #2		
Timeframe	Average Flowrate	Maximum Flowrate
	(L/sec)	(L/sec)
January	19.73	19.90
February	19.65	19.90
March	4.48	20.00
April	19.55	19.80
May	11.34	19.80
June	11.75	19.80
July	19.51	19.70
August	16.97	19.60
September	10.40	19.80
October	10.63	19.60
November	7.73	19.40
December	3.13	19.70
2022	12.00	20.00

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.