

# SUMMARY REPORT

ONTARIO REGULATION 170/03  
SCHEDULE 22

## MOOREFIELD DRINKING WATER SYSTEM

FOR THE PERIOD:  
JANUARY 1, 2021 – DECEMBER 31, 2021

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



## **SUMMARY REPORTS FOR MUNICIPALITIES**

Period from: JANUARY 01, 2021 – DECEMBER 31, 2021

### **DRINKING-WATER SYSTEMS REGULATION O. Reg. 170/03, Schedule 22**

<b>DRINKING-WATER SYSTEM NAME:</b>	<b>MOOREFIELD DRINKING WATER SYSTEM</b>
<b>DRINKING-WATER SYSTEM NUMBER:</b>	<b>260069732</b>
<b>DRINKING-WATER SYSTEM CATEGORY:</b>	LARGE MUNICIPAL RESIDENTIAL
<b>DRINKING-WATER WORKS PERMIT #:</b>	105-202, Issue #4 – Issued: November 13, 2020
<b>MUNICIPAL DRINKING WATER LICENCE #:</b>	105-102, Issue #3 – Issued: November 13, 2020 Expiry: November 13, 2025
<b>PERMIT TO TAKE WATER #:</b>	1401-9KXJW5 – May 31, 2024

#### **REPORT:**

This report is a summary of water quality information for the Moorefield Water Supply, published in accordance with Schedule 22 of Ontario's Drinking-Water System Regulation 170/03 for the reporting period of **January 1, 2021 to December 31, 2021**.

This report was prepared by the Ontario Clean Water Agency on behalf of the Township of Mapleton.

#### **Issues of Non-Compliance**

The following outlines any instances when the DWS failed to meet the requirements of the Act, Regulations, System Approval(s) and any Order during this reporting period and the measures taken to correct each failure.

<b>Non-Compliance Description</b>	<b>Date Non-Compliance Issued</b>	<b>Corrective Action</b>	<b>Date Corrective Action Implemented</b>
n/a	n/a	n/a	n/a

**There were no instances of non-compliance this reporting year.**

**The Moorefield Drinking Water System was last inspected by the Ministry of the Environment, Conservation, and Parks on August 9, 2021.**

Please refer to the Section 11 Annual Report for the Moorefield Drinking Water System for information regarding Adverse Water Quality Incident(s) which may have occurred during the reporting period.

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#### SYSTEM PERFORMANCE:

The following tables list the quantities and flow rates of the water supplied during the reporting period covered by this report, including each raw water well and the treated water system. It includes the monthly average, maximum daily flows and a comparison to the rated capacity and flow rates specified in the system approval.

Table 1: Moorefield DWS – Maximum Allowable Volume and Flow Rate, and Rated Capacity				
Moorefield Well Supply	Well #1	Well #2	Total Raw	Treated
Design Capacity (m <sup>3</sup> /day)	1310.00	1310.00	2620.00	1555.00
Approved Maximum Flow Rate (L/s)	15.17	15.17	-	-
Average Day Flow (m <sup>3</sup> /day)	60.16	63.43	-	113.15
Maximum Day Flow (m <sup>3</sup> /day)	179.78	156.42	-	263.42
% Average Day Flow/Design Capacity	4.59%	4.84%	-	7.28%
% Maximum Day Flow/Design Capacity	13.72%	11.94%	-	16.94%
Average Peak Flow Rate (L/s)	10.27	6.86	-	-
Maximum Peak Flow Rate (L/s)	<b>25.00*</b>	<b>25.00*</b>	-	-
% Average Peak Flow Rate/Approved	67.70%	45.22%	-	-
% Maximum Peak Flow Rate/Approved	<b>159.24%*</b>	<b>159.24%*</b>	-	-

A review of flow information for the period of January 1, 2021 to December 31, 2021 indicates that:

- The maximum daily volume specified in the PTTW was not exceeded on any well.
- The drinking water system did not exceed the rated capacity for the maximum treated volume of treated water that flows from the treatment subsystem to the distribution system as specified in the MDWL.
- There were 2 instances where the peak flow rate exceeded the maximum allowable, this occurred on \*September 14, 2021 during flow meter calibrations.

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The following table outlines the detailed flow summary for Treated Water

Treated				
Month	Monthly Flow Total (m <sup>3</sup> /month)	Daily Flow Average (m <sup>3</sup> /day)	Daily Flow Maximum (m <sup>3</sup> /day)	Max Percent Rated Capacity (%)
January	3636.54	117.31	167.87	10.80
February	3335.42	119.12	168.51	10.84
March	3698.24	119.30	157.25	10.11
April	3577.22	119.24	172.93	11.12
May	3929.22	126.75	175.68	11.30
June	3112.79	103.76	143.81	9.25
July	3031.87	97.80	140.29	9.02
August	3432.3	110.72	156.42	10.06
September	3273.28	109.11	168.19	10.82
October	3168.38	102.21	165.44	10.64
November	3643.58	121.45	263.42	16.94
December	3441.09	111.00	148.80	9.57
<b>Total</b>	41279.95			
<b>Avg</b>		113.15		
<b>Max</b>			263.42	16.94

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### DRINKING-WATER SYSTEMS REGULATION O. Reg. 170/03, Schedule 22

The following tables outline the detailed flow summary for each Raw Water Well:

Table 3: Facility Flow Summary for Raw Water Source W1						
<b>Well #1</b>						
Month	Monthly Flow Total (m <sup>3</sup> /month)	Daily Flow Average (m <sup>3</sup> /day)	Daily Flow Maximum (m <sup>3</sup> /day)	Max Percent Water Taking Limits (%)	Daily Flow Peak Flow Rate (L/sec)	Number of Days of Water Taking
January	2114.08	70.47	179.78	13.72	10.56	30
February	1664.10	64.00	120.19	9.17	10.50	26
March	1811.10	58.42	80.90	6.18	10.60	31
April	1605.92	57.35	72.86	5.56	10.50	28
May	1771.68	59.06	122.85	9.38	10.60	30
June	1505.76	55.77	113.41	8.66	10.60	27
July	1457.79	56.07	85.50	6.53	10.60	26
August	1604.67	57.31	78.91	6.02	10.50	28
September	1580.99	58.56	110.94	8.47	<b>25.00*</b>	27
October	1549.41	61.98	119.39	9.11	10.60	25
November	1854.59	66.24	142.24	10.86	10.60	28
December	1699.55	56.65	77.47	5.91	10.70	30
<b>Total</b>	20219.65					336
<b>Avg</b>		60.16			10.27	
<b>Max</b>			179.78	13.72	<b>25.00*</b>	

\*September 14, 2021 – Flow meter calibration

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### DRINKING-WATER SYSTEMS REGULATION O. Reg. 170/03, Schedule 22

Table 4: Facility Flow Summary for Raw Water Source W2						
<b>Well #2</b>						
Month	Monthly Flow Total (m <sup>3</sup> /month)	Daily Flow Average (m <sup>3</sup> /day)	Daily Flow Maximum (m <sup>3</sup> /day)	Max Percent Water Taking Limits (%)	Daily Flow Peak Flow Rate (L/sec)	Number of Days of Water Taking
January	1518.88	66.04	135.04	10.31	7.67	23
February	1631.30	60.42	86.14	6.58	7.20	27
March	1911.42	65.91	124.51	9.50	6.98	29
April	1925.70	64.19	134.62	10.28	6.96	30
May	2169.95	72.33	133.34	10.18	6.99	30
June	1590.91	61.19	112.86	8.62	6.92	26
July	1558.02	53.72	87.49	6.68	6.94	29
August	1814.08	62.55	140.96	10.76	6.90	29
September	1694.83	65.19	137.25	10.48	<b>25.00*</b>	26
October	1606.93	57.39	122.72	9.37	6.94	28
November	1803.97	66.81	156.42	11.94	6.94	27
December	1700.24	65.39	127.47	9.73	6.98	26
<b>Total</b>	20926.22					330
<b>Avg</b>		63.43			6.86	
<b>Max</b>			156.42	11.94	<b>25.00*</b>	

\*September 14, 2021 – Flow meter calibration