

SUMMARY REPORT

ONTARIO REGULATION 170/03
SCHEDULE 22

DRAYTON DRINKING WATER SYSTEM

**FOR THE PERIOD:
JANUARY 1, 2020 – DECEMBER 31, 2020**

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



**ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX**

SUMMARY REPORTS FOR MUNICIPALITIES

Period from: JANUARY 01, 2020 – DECEMBER 31, 2020

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

DRINKING-WATER SYSTEM NAME:	DRAYTON DRINKING WATER SYSTEM
DRINKING-WATER SYSTEM NUMBER:	220004064
DRINKING-WATER SYSTEM CATEGORY:	LARGE MUNICIPAL RESIDENTIAL
DRINKING-WATER WORKS PERMIT #:	105-201, Issue #5 – Issued: November 13, 2020
MUNICIPAL DRINKING WATER LICENCE #:	105-101, Issue #3 – Issued: November 13, 2020 Expiry: November 13, 2025
PERMIT TO TAKE WATER #:	0758-98MLKT – Expiry: May 31, 2023

REPORT:

This report is a summary of water quality information for the Drayton Water Supply, published in accordance with Schedule 22 of Ontario's Drinking-Water System Regulation 170/03 for the reporting period of **January 1, 2020 to December 31, 2020**.

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.

Non-Compliance Description	Date Non-Compliance Issued	Corrective Action	Date Corrective Action Implemented
Loss of Continuous Monitoring	July 31 st 2020 10:57-13:40hrs	Operator restored power to cl2 analyzer, turbidity analyzer and distribution flow meter at 13:35 - DWS was returned to normal operating conditions and the process data recorded via SCADA again. Operator confirmed cl2 residuals were sufficient, free cl2 1.74 mg/L at 13:40. Alarms were put through the plc as a redundancy to the analyzer and receptacles were isolated so they are only purposed for the analyzers.	08/27/2020

The Drayton Drinking Water System was last inspected by the Ministry of the Environment, Conservation, and Parks on August 19, 2020.

Please refer to the Section 11 Annual Report for the Drayton 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: Drayton DWS – Maximum Allowable Volume and Flow Rate, and Rated Capacity				
Drayton Well Supply	Well #1	Well #2	Total Raw	Treated
Design Capacity (m ³ /day)	1964.16	1964.16	3928.32	3928.0
Approved Maximum Flow Rate (L/s)	22.73	22.73	-	-
Average Day Flow (m ³ /day)	270.85	315.41	-	445.53
Maximum Day Flow (m ³ /day)	670.74	736.71	-	974.91
% Average Day Flow/Design Capacity	13.79%	16.06%		11.34%
% Maximum Day Flow/Design Capacity	34.15%	37.51%	-	24.82%
Average Peak Flow Rate (L/s)	21.71	19.64	-	-
Maximum Peak Flow Rate (L/s)	23.70	20.30	-	-
% Average Peak Flow Rate/Approved	89.09%	85.17%	-	-
% Maximum Peak Flow Rate/Approved	104%	89.31%	-	-

A review of flow information for the period of January 1, 2020 to December 31, 2020 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 maximum peak flow rate was exceeded for Well 1 within the drinking water system.
 - June 14, 2020 – exceedance occurred for brief seconds on startup and was not reportable due to it being a brief spike. Measures were taken to prevent this spike from happening in the future on startup.
 - August 6, 2020 – exceedance occurred for less than 5 minutes due to electrician working on equipment

Table 2: Facility Flow Summary for Treated Water				
Treated				
Month	Monthly Flow Total (m ³ /month)	Daily Flow Average (m ³ /day)	Daily Flow Maximum (m ³ /day)	Max Percent Rated Capacity (%)
January	11795.83	380.51	433.61	11.04
February	11079.63	382.06	436.83	11.12
March	12081.88	389.74	627.24	15.97
April	11975.75	399.19	477.18	12.15

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May	14327.09	462.16	648.97	16.52
June	15296.16	509.87	675.55	17.20
July	17334.31	559.17	974.91	24.82
August	15078.45	486.40	770.79	19.62
September	13760.63	458.69	588.00	14.97
October	13401.44	432.30	485.81	12.37
November	134287.57	447.62	507.10	12.91
December	13597.49	438.63	516.64	13.15
Total	163157.20			
Avg		445.78		
Max			974.91	24.82

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

Table 3: Facility Flow Summary for Raw Water Source W1						
Well #1						
Month	Monthly Flow Total (m ³ /month)	Daily Flow Average (m ³ /day)	Daily Flow Maximum (m ³ /day)	Max Percent Water Taking Limits (%)	Daily Flow Peak Flow Rate (L/sec)	Number of Days of Water Taking
January	10988.68	366.29	424.94	21.63	20.70	30
February	1089.56	155.65	429.43	21.86	20.90	7
March	11157.38	371.91	452.27	23.03	20.80	30
April	1640.88	164.09	386.43	19.67	21.10	10
May	7773.97	370.19	537.15	27.35	21.80	21
June	11490.12	478.75	670.74	34.15	23.70	24
July	1292.54	129.25	479.91	24.43	22.10	10
August	2945.92	245.49	450.47	22.93	22.90	12
September	13423.00	447.43	581.40	29.60	21.40	30
October	228.55	32.65	161.13	8.20	20.70	7
November	12039.32	429.98	510.11	25.97	22.20	28
December	350.90	58.48	221.83	11.29	22.20	6
Total	74420.82					209
Avg		270.85			21.71	
Max			670.74	34.15	23.70	

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Table 4: Facility Flow Summary for Raw Water Source W2						
Well #2						
Month	Monthly Flow Total (m ³ /month)	Daily Flow Average (m ³ /day)	Daily Flow Maximum (m ³ /day)	Max Percent Water Taking Limits (%)	Daily Flow Peak Flow Rate (L/sec)	Number of Days of Water Taking
January	709.08	118.18	400.59	20.39	18.90	6
February	10291.10	381.15	465.65	23.71	19.10	27
March	713.41	89.18	420.58	21.41	19.10	8
April	10686.73	395.80	484.84	24.68	19.30	27
May	6814.72	400.87	678.91	34.56	19.30	17
June	3885.75	277.55	593.85	30.23	19.60	14
July	17136.84	552.80	736.71	37.51	19.80	31
August	12962.52	480.09	607.34	30.92	20.10	27
September	111.31	18.55	33.53	1.71	19.90	6
October	13803.27	445.27	495.73	25.24	20.30	31
November	1281.67	183.10	506.78	25.80	20.30	7
December	13714.53	442.40	535.42	27.26	20.00	31
Total	92110.93					232
Avg		315.41			19.64	
Max			736.71	37.51	20.30	