

2023 SCHEDULE 22 SUMMARY REPORT

HOCKLEY
DRINKING WATER
SYSTEM



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

Prepared for the Corporation of the Township of Adjala-Tosorontio 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:	220005036
Drinking-Water System Name:	Hockley Drinking Water System
Drinking-Water System Owner:	The Corporation of the Township of Adjala-Tosorontio
Drinking-Water System Category:	Small 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 occurred on December 14, 2023, for the period covering October 26, 2022 to December 14, 2023. On February 15, 2024 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 taken to correct the non-compliance. All self-reported non-compliances included in the inspection report, are 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
<p>Non-compliance with Section 11-3 of Schedule 11 of O.Reg. 170/03 requires the collection of a raw microbiological sample from each source well monthly. Section 6-1.1(3) of Schedule 6 requires the monthly samples be collected 20 to 40 days apart.</p> <p>While raw water samples were collected monthly as required, the samples were collected outside of the 20 to 40 day sampling window for the following dates: - the source well was sampled on October 3 and November 14, 2022, (42 days), May 1 and June 12, 2023 (41 days), and on October 3 and November 14, 2023, (42 days) during the inspection period.</p>	N/A	<ul style="list-style-type: none"> OCWA identified this issue and made corrections to their sampling plan to prevent future recurrences. Notice of non-compliance submitted to MECP on June 14, 2023. No further actions were required by the MECP.

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 incidents to the MECP, and Confirmed non-compliances in the MECP Inspection Report are included in Table 1.

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

Incident	Duration	Corrective Actions
<p>Non-compliance with Section 11-3 of Schedule 11 of O.Reg. 170/03 requires the collection of a raw microbiological sample from each source well monthly. Section 6-1.1(3) of Schedule 6 requires the monthly samples be collected 20 to 40 days apart.</p> <p>While raw water samples were collected monthly as required, the samples were collected outside of the 20 to 40 day sampling window for the following dates: - the source well was sampled on October 3 and November 14, 2022, (42 days), May 1 and June 12, 2023 (41 days), and on October 3 and November 14, 2023, (42 days) during the inspection period.</p>	<p>N/A</p>	<ul style="list-style-type: none"> • OCWA identified this issue and made corrections to their sampling plan to prevent future recurrences. • Notice of non-compliance submitted to MECP on June 14, 2023. • No further actions were required by the MECP.
<p>Non-Compliance with O.Reg. 170/03, Schedule 6 Continuous Monitoring and O.Reg. 170/03 Schedule 13(1): Retention of Records</p> <p>On November 8, 2023 a Loss of Continuous Monitoring occurred for approximately 70 minutes from 1800 hrs to 1910 hrs due to an Uninterrupted Power Supply (UPS) failure which caused a loss of power to the post chlorine analyzer and data logger.</p>	<p>From 1800 hrs to 1910 hrs (approximately 70 minutes)</p>	<ul style="list-style-type: none"> • OCWA received a low chlorine alarm and responded, upon arrival staff observed the UPS failure • OCWA collected and documented hand-held free chlorine residuals (1.38 mg/L) and post chlorine analyzer (1.35 mg/L) • OCWA confirmed alarms were operational during data loss • Systems communication re-established and operational, completed November 8, 2023 • UPS was replaced on December 18, 2023 • Notification of non-compliance provided to MECP on November 9, 2023. No further actions required.

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

2. Assessment of Flowrates and Quantity of Water Supplied

The following tables (Table 3 to 5) 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. To ensure the flow measuring devices are within acceptable deviation limits, a third party performs annual checks/verifications/calibrations.

2.1 Treated Water

Municipal Drinking Water License (MDWL):	097-103 (Issue Number: 4)
Allowable Rated Capacity:	199 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 ^{3A}					
Timeframe	Average Flow (m ³ /day)	Percent of Rated Capacity	Maximum Flow (m ³ /day)	Percent of Rated Capacity	Total Volume (m ³)
January	6.70	3.37%	11.01	5.53%	207.55
February	6.91	3.47%	12.04	6.05%	193.45
March	6.55	3.29%	8.42	4.23%	203.05
April	6.80	3.42%	8.86	4.45%	202.74
May	8.67	4.36%	19.01	9.55%	268.87
June	8.09	4.07%	20.26	10.18%	254.70
July	7.75	3.89%	10.73	5.39%	240.26
August	7.22	3.63%	12.01	6.04%	223.67
September	7.56	3.80%	11.03	5.54%	226.79
October	7.25	3.64%	10.79	5.42%	224.82
November	7.92	3.98%	15.63	7.85%	237.66
December	8.17	4.11%	18.06	9.08%	253.19
2023	7.50	3.77%	20.26	10.18%	2,736.75

^{3A}Treated water flow and flowrate data is the raw water flow and flowrate data. There is only one set of pumps responsible for the raw water taking, water that flows into the treatment system and water that flows from the treatment system into the distribution system.

A review of flow information for the reporting period indicates that the Hockley Drinking Water System operated within the rated capacity specified in the MDWL (199 m³/day), for the maximum treated volume of treated water that flows from the treatment subsystem to the distribution system. A summary of flowrates of water that flows into the treatment system can be found in Table 5. The applicable MDWL for the reporting period did not list a maximum allowable limit for the flowrate into a treatment subsystem.

2.2 Raw Water

Permit to Take Water Number (PTTW):	0118-BY6TL8
Allowable Maximum Raw Water Volume - Well #1 (PW1):	90 m ³ /day
Allowable Maximum Raw Water Flowrate - Well #1 (PW1):	136 L/min (2.27 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 (PW1) Monthly Average, Maximum Flow and Total Volume for 2023

Raw Water Flow – Well #1 (PW1)					
Timeframe	Average Flow (m ³ /day)	Percent of Allowable Volume	Maximum Flow (m ³ /day)	Percent of Allowable Volume	Total Volume (m ³)
January	6.70	7.44%	11.01	12.23%	207.55
February	6.91	7.68%	12.04	13.38%	193.45
March	6.55	7.28%	8.42	9.36%	203.05
April	6.80	7.56%	8.86	9.84%	202.74
May	8.67	9.63%	19.01	21.12%	268.87
June	8.09	8.99%	20.26	22.51%	254.70
July	7.75	8.61%	10.73	11.92%	240.26
August	7.22	8.02%	12.01	13.34%	223.67
September	7.56	8.40%	11.03	12.26%	226.79
October	7.25	8.06%	10.79	11.99%	224.82
November	7.92	8.80%	15.63	17.37%	237.66
December	8.17	9.08%	18.06	20.07%	253.19
2023	7.50	8.33%	20.26	22.51%	2,736.75

A review of flow information for the reporting period indicates that Well #1 (PW1) operated within the PTTW's maximum allowable daily raw water volume 90 m³/day.

Table 5. Raw Water Well #1 (PW1) Annual and Monthly Average and Maximum Flowrates for 2023

Raw Water Flowrate – Well #1 (PW1)		
Timeframe	Average Flowrate (L/sec)	Maximum Flowrate (L/sec)
January	1.99	2.17
February	1.99	2.12
March	2.01	2.05
April	2.00	2.17
May	2.01	2.17
June	2.01	2.12
July	2.02	2.11
August	2.01	2.01
September	2.01	2.11
October	2.00	2.09
November	1.98	2.12
December	1.98	2.08
2023	2.00	2.17

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- PW1 (2.27 L/sec).