2025

DRINKING WATER SYSTEMS ANNUAL WATER QUALITY AND SUMMARY REPORT

Ontario Regulation 170/03 Section 11 & Schedule 22

Hamilton

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1. INTRODUCTION

A key priority for the City of Hamilton is to ensure a safe, high-quality, consistent drinking water supply to our residents. This report for municipalities has been prepared in accordance with the Safe Drinking Water Act, Ontario Regulation 170/03, Section 11, and Schedule 22 for 2025.

The City of Hamilton is the owner of the following Drinking Water Systems:

Drinking Water System (DWS)	Drinking Water System Number	Municipal Drinking Water Licence Number	Drinking Water Works Permit Number	Permit to Take Water Number
Hamilton, Woodward Subsystem	220003118	005-101	005-201	2437-BCLNEJ
Hamilton, Fifty Road Subsystem	260069173	005-101	005-201	N/A
Freelton	220004117	005-102	005-202	4650-BB2HXG (FDF01 & FDF03)
Greensville	220004126	005-103	005-203	P-300-8263989068 (FDG01)
Carlisle	220004108	005-104	005-204	4347-BYPPG2 (FDC01 & FDC02)
				P-300-1833477486 (FDC03R & FDC06)
				P-300-7334777708 (FDC05)
Lynden	250001830	005-105	005-205	1185-D7NPNV (FDL01 & FDL03)

There were no Provincial Officer’s Orders issued with regard to drinking water. All Adverse Water Quality Incidents (AWQI) were reported to the Ontario Ministry of Environment, Conservation and Parks (MECP), Spills Action Centre (SAC) and Public Health Services (PHS) and are summarized in this report. All water taking quantities and flow rates were within approved rated capacities and provincial water taking limits.

The MECP Inspection Cycle spans two (calendar) years, from April 1 to March 31. Ratings are given upon completion of the inspection and the issuance of the Inspection Report. Ratings for the two inspection cycles that occurred in between April 1, 2024 and March 31, 2026 (April 1, 2024 – March 31, 2025 and April 1, 2025 – March 31, 2026) are as follows.

TABLE 1-1: 2024-2025 INSPECTION CYCLE RATINGS (STATUS AS OF DECEMBER 31, 2025)

Drinking Water System (DWS)	Inspection Status	Report Status	Inspection Rating (2024 - 2025)
Hamilton, Woodward Subsystem	Complete	Complete	94.94%
Hamilton, Fifty Road Subsystem	Complete	Complete	98.93%
Freelton	Complete	Complete	100.00%
Greensville	Complete	Complete	95.62%
Carlisle	Complete	Complete	97.20%
Lynden	Complete	Complete	100.00%

TABLE 1-2: 2025-2026 INSPECTION CYCLE RATINGS (STATUS AS OF DECEMBER 31, 2025)

Drinking Water System (DWS)	Inspection Status	Report Status	Inspection Rating (2025 - 2026)
Hamilton, Woodward Subsystem	Commenced	Pending	Pending
Hamilton, Fifty Road Subsystem	Complete	Complete	100.00%
Freelton	Complete	Complete	97.05%

Drinking Water System (DWS)	Inspection Status	Report Status	Inspection Rating (2025 - 2026)
Greensville	Commenced	Pending	Pending
Carlisle	Complete	Complete	97.39%
Lynden	Pending	Pending	Pending

1.1 ANNUAL REPORTS

The Drinking Water Annual Report required under Ontario Regulation 170/03 Section 11, and Schedule 22 is provided to all drinking water system owners who are connected to the system.

Hamilton residents are notified through the local newspaper, digital advertising, and social media that the annual report is available at no charge at www.hamilton.ca/WaterQuality and can request a copy by contacting (905) 546-2489 or water@hamilton.ca. The Report is available for inspection at 700 Woodward Avenue, Administration Building, Compliance Support Group.

1.2 WATER QUALITY AND OPERATIONAL TESTING

Appendix A.1 of this report includes a summary of the water quality and operational testing results for each drinking water system.

1.3 SUMMARY OF MONETARY EXPENSES INCURRED IN 2025

In February 2024, a cybersecurity incident caused an information technology (IT) outage that affected multiple systems across the City of Hamilton's network. Although some systems have been restored since then, the work order system and databases containing information related to expenses for the drinking water systems have not yet been recovered.

1.4 LABOUR DISRUPTION

A labour disruption occurred from May 14, 2025, to July 16, 2025, due to strike action by the City of Hamilton’s Hamilton Ontario Water Employees Association union (IUOE Local 772). Contingency plans were submitted to the MECP in accordance with Ontario Regulation 128/04: Certification of Drinking Water System Operators and Water Quality Analysts. Upon review, the MECP issued written notice accepting the plan and there were no compliance issues related to water services during this period.

2. HAMILTON DRINKING WATER SYSTEM, WOODWARD SUBSYSTEM WATER QUALITY ANNUAL REPORT

2.1 GENERAL INFORMATION

The Hamilton Drinking Water System, Woodward Subsystem, is a large municipal residential system that serves approximately 569,353 residents within Hamilton, Stoney Creek, Dundas, Ancaster, Waterdown and Glanbrook. The Woodward Subsystem also supplies treated water to parts of Haldimand County (Caledonia, York and Cayuga) and parts of Halton Region.

The Woodward Avenue Water Treatment Plant has two raw water intake pipes (1.52 m and 2.44 m in diameter). The treatment process begins when raw water is drawn from Lake Ontario through these intake pipes located approximately 915 m and 945 m from shore at a depth of approximately 9 m.

Drinking Water System Number	Drinking Water System (DWS) Name	Drinking Water System Owner	Drinking Water System Category	Reporting Period
220003118	Hamilton, Woodward Subsystem	City of Hamilton	Large Municipal Residential	January 1, 2025 to December 31, 2025

2.2 TREATMENT

- The City has the ability to add chlorine at the raw water intake for zebra mussel control when needed.
- The low-lift pumping station has three travelling screens, through which debris is removed before the water is pumped to the Woodward Avenue Water Treatment Plant.
- At the pre-treatment stage, polyaluminum chloride is added to the water to coagulate suspended solids. Additional chlorine is also added at this stage to ensure disinfection.
- The water is clarified by flocculation and sedimentation, then filtration using gravel, sand and granulated activated carbon media filters.
- Chlorine, ammonia, hydrofluorosilicic acid (fluoride) and phosphoric acid (orthophosphate) are added before the treated water is sent to the distribution system. Chlorine is added as the primary means to ensure disinfection. Ammonia is added to convert the chlorine to mono-chloramine to help maintain stable

chlorine residuals in the distribution system. Hydrofluorosilicic acid (fluoride) is added to the drinking water to promote dental health, and phosphoric acid (orthophosphate) is added to reduce lead (from lead water services and fixtures) from leaching into the water (corrosion control).

- Pumps within the high-lift pumping station convey water from the Woodward Avenue Water Treatment Plant to the distribution system.

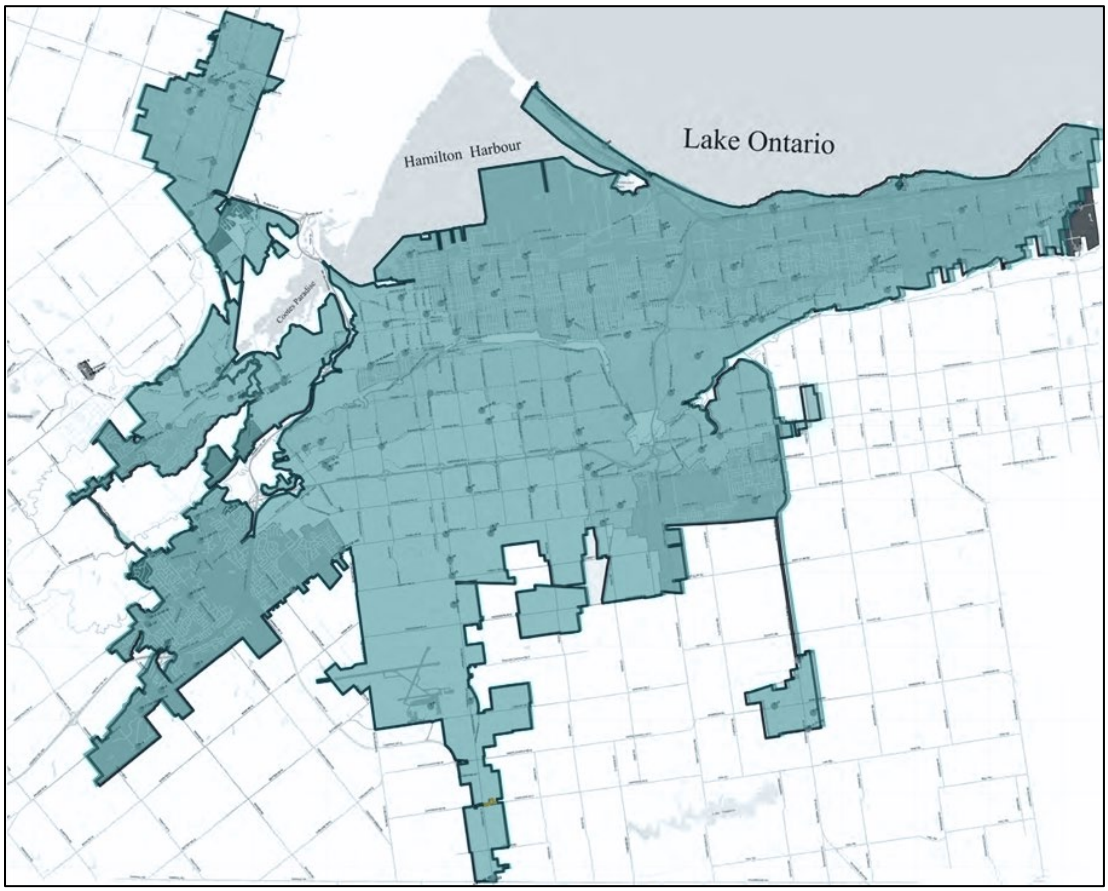
2.2.1 DISTRIBUTION

The Woodward Subsystem consists of 22 pumping stations, 10 reservoirs, four elevated storage tanks, one standpipe, and approximately 2,130 km of water mains.

2.2.2 SAMPLING AND ANALYSIS

Continuous monitoring equipment such as chlorine analyzers, turbidity meters, fluoride and phosphate analyzers monitor the water 24/7 to ensure the maintenance of high-quality drinking water. Raw water is sampled and analyzed weekly and treated water is sampled and analyzed six days per week. Refer to Appendix A.1 for sampling details. Distribution water is sampled and analyzed five days per week with chlorine residual in the distribution system analyzed daily.

FIGURE 2-1: MAP OF DRINKING WATER SYSTEM



2.3 CORROSION CONTROL PROGRAM

On November 8, 2018, phosphoric acid (orthophosphate) was introduced to the Hamilton Drinking Water System, Woodward Subsystem for corrosion control, as mandated and approved by the Ministry of Environment, Conservation and Parks (MECP). The goal of this program is to reduce potential lead exposure from pipes, plumbing fixtures and solder. A post-implementation sampling and monitoring plan was established to evaluate program effectiveness.

Since implementation, 14 rounds of community lead sampling have been completed in accordance with Schedule 15.1 of Ontario Regulation 170/03. The sampling results demonstrate a steady decline in lead levels with 2025 results remaining below the Maximum Acceptable Concentration (MAC) of 10 µg/L established under Ontario Regulation 169/03.

System-wide corrosion control sampling continued in 2025, providing data beyond the regulatory requirements and monitoring for potential secondary impacts. The plant optimization study was completed in 2025, recommending the orthophosphate dosing target remain at 1.90 mg/L (previously reduced from 2.10 mg/L in October 2024) and a continuation of the comprehensive lead and water quality monitoring plan.

In March 2025, the MECP received the Corrosion Control Program Annual Report summarizing the overall effectiveness of the program. Since the addition of phosphoric acid (orthophosphate), proactive distribution system flushing has continued, and monitoring indicates minimal secondary impacts. The City of Hamilton remains compliant with the applicable regulatory requirements and continues to enhance the program by incorporating industry best practices and consultant recommendations.

2.4 PROVISION OF DRINKING WATER TO OTHER MUNICIPALITIES

The following is a list of municipal drinking water systems that receive drinking water from the Hamilton Drinking Water System, Woodward Subsystem:

Drinking Water System Name	Drinking Water System Number
Caledonia/Cayuga/York Water Distribution System	260004566
North Aldershot Water Distribution System	260086762
Snake Road Water Distribution System	260086775
Bridgeview Community Water Distribution System	260068419

2.5 WATER TREATMENT CHEMICALS USED DURING THIS REPORTING PERIOD

- polyaluminum chloride

- liquid chlorine
- aqueous ammonia
- hydrofluorosilicic acid (fluoride)
- phosphoric acid (orthophosphate)

2.6 BREAKDOWN OF SIGNIFICANT MONETARY EXPENSES

In February 2024, a cybersecurity incident caused an information technology (IT) outage that affected multiple systems across the City of Hamilton's network. Although some systems have been restored since then, the work order system and databases containing information related to expenses for the drinking water systems have not yet been recovered.

2.7 ADVERSE TEST RESULTS AND REPORTABLE INCIDENTS

The following outlines the notices submitted in accordance with subsection 18(1) of the Safe Drinking Water Act or section 16-4 of Schedule 16 of O.Reg. 170/03 and reported to the MECP, SAC.

Notification Date (y-m-d)	Location	Adverse Water Quality Incident	Resolution
2025-02-07	HDR05, Stonechurch Reservoir	Lead = 0.0128 mg/L (Maximum Acceptable Concentration: 0.010 mg/L)	Resampled adverse location. Result passed.
2025-09-02	Hydrant GF12H174, Fletcher Rd, Binbrook	Total Chlorine = 0.17 mg/L Free Chlorine = 0.03 mg/L Combined Chlorine = 0.14 mg/L (Regulatory requirement is minimum Combined Chlorine of 0.25 mg/L or Free Chlorine of 0.05 mg/L)	Watermain was flushed to restore chlorine.

2.8 MECP INSPECTION FINDINGS AND SELF-DECLARED NON-COMPLIANCES

The following is a summary of findings that were either issued during an MECP inspection or self-declared during the 2025 calendar year.

The 2024-2025 inspection report was completed on January 24, 2025. The findings of non-compliance are reported in the table below.

The 2025-2026 inspection commenced, and the report remains pending as of December 31, 2025.

TABLE 2-1: 2024-2025 MECP INSPECTION REPORT, JANUARY 24, 2025

#	Finding Type	Finding	Status
1	Non-compliance	Logbooks were not properly maintained and/or did not contain the required information.	Action complete
2	Non-compliance	The Lee Smith Reservoir (HDR00) entry hatch required repairs to prevent the entry of foreign materials into the reservoir.	Action complete
3	Non-compliance	Reporting requirements for lead samples taken from plumbing prescribed by Schedule 15.1-9 of O. Reg. 170/03 were not met.	Action complete
4	Non-compliance	The Harmful Algal Bloom (HAB) Plan was required to be updated by January 29, 2025.	Action complete. The Plan was updated before the deadline of January 29, 2025, as required.
5	Non-compliance	All parts of the drinking water system were not disinfected in accordance with a procedure listed in Schedule B of the Drinking Water Works Permit.	Action complete

TABLE 2-2: SELF-DECLARED NON-COMPLIANCES

#	Finding Type	Finding	Status
1	Self-declared Non-compliance	During a hydrant installation, a watermain break occurred and a microbiological sample was not collected.	Closed
2	Self-declared Non-compliance	A page was removed from an operator logbook.	Closed
3	Self-declared Non-compliance	A page was removed from an operator logbook and three pages were removed from a visitor/maintenance logbook.	Action in process

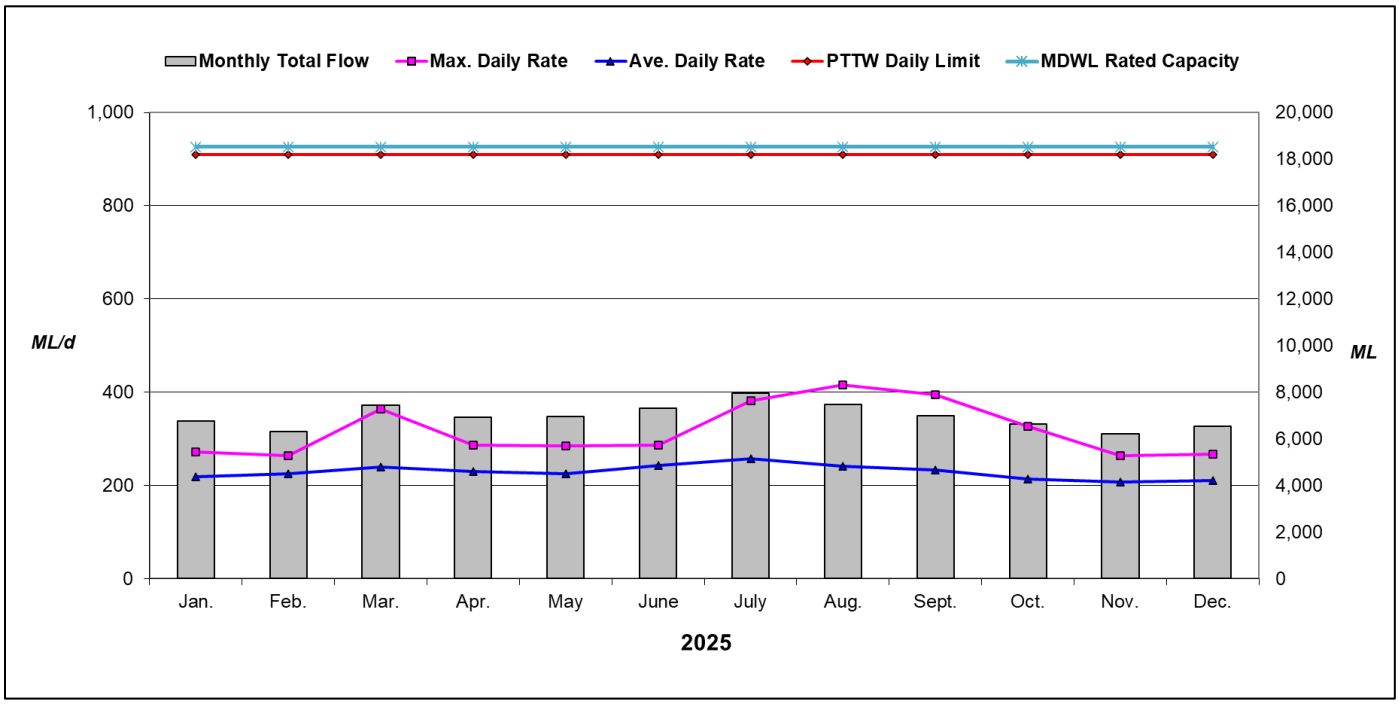
2.9 WATER PRODUCTION REPORTS - SUMMARY

The following provides a summary of daily flow rates and instantaneous peak flow rates in comparison to the capacity of the waterworks as identified in the Permit to Take Water (PTTW) and Municipal Drinking Water Licence (MDWL). This information is tabulated in the accompanying tables.

TABLE 2-3: WOODWARD TREATMENT PLANT – 2025 MONTHLY PRODUCTION (SUMMARY)

Month	Monthly Total Flow (ML)	Average Daily Rate (ML/d)	Maximum Daily Rate (ML/d)	PTTW Daily Limit (ML/d)	MDWL Daily Rated Capacity (ML/d)
January	6,776	219	273	909	926
February	6,309	225	264	909	926
March	7,439	240	364	909	926
April	6,921	231	287	909	926
May	6,962	225	286	909	926
June	7,311	244	286	909	926
July	7,968	257	383	909	926
August	7,483	241	415	909	926
September	7,002	233	395	909	926
October	6,650	215	327	909	926
November	6,220	207	263	909	926
December	6,523	210	268	909	926

FIGURE 2-2: WOODWARD TREATMENT PLANT – 2025 MONTHLY PRODUCTION (SUMMARY)



3. HAMILTON DRINKING WATER SYSTEM, FIFTY ROAD SUBSYSTEM WATER QUALITY ANNUAL REPORT

3.1 GENERAL INFORMATION

The municipal water supply for this area is supplied by the Town of Grimsby’s water distribution system and serves an approximate population of 201 residents. Treated water is provided from Grimsby, west along Highway 8, then south on Fifty Road to Concession Road and to an underground, 1,100 m³ storage reservoir operated by the City of Hamilton. The Grimsby watermain supplies water directly to Pressure District #10 and feeds the Hamilton reservoir. Hamilton customers in Pressure District #9 receive their water from the reservoir.

Drinking Water System Number	Drinking Water System Name	Drinking Water System Owner	Drinking Water System Category	Reporting Period
260069173	Hamilton, Fifty Road Subsystem	City of Hamilton	Small Municipal Residential	January 1, 2025 to December 31, 2025

For more information on the Town of Grimsby’s Quality Management System, Drinking Water Quality Management System Policy, Licences/Permits, Operational Plan and Annual Drinking Water Quality Report, please visit www.grimsby.ca.

3.1.1 TREATMENT

- Water is treated at the Grimsby Water Treatment Plant, which uses free chlorine as their primary disinfection method, and conveyed to the Fifty Road System via a Town of Grimsby watermain. The Hamilton reservoir acts as a free chlorine contact chamber to ensure disinfection of the water. Chlorine residual in the reservoir is maintained by a rechlorination system.
- Hydrofluorosilicic acid (fluoride) and phosphoric acid (orthophosphate) are not added to the water supplied by the Town of Grimsby.

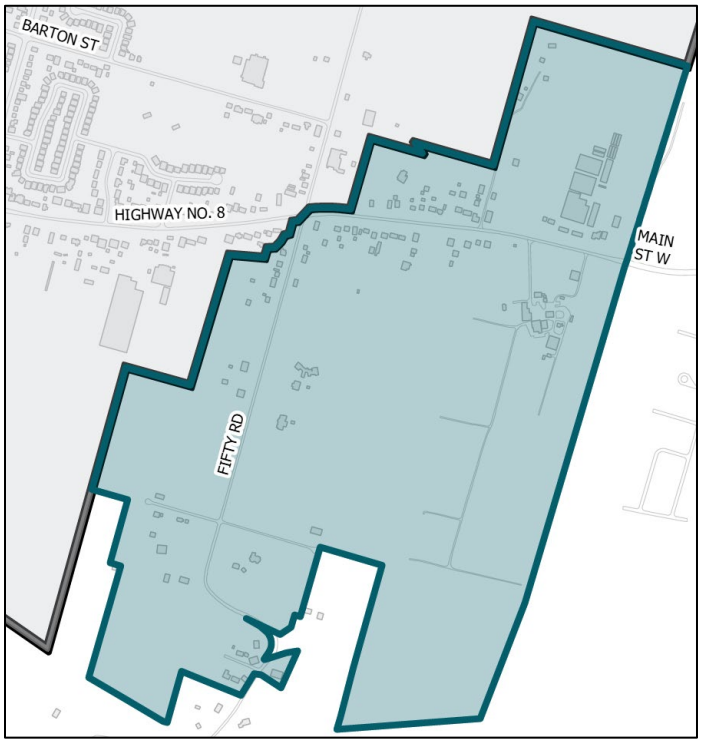
3.1.2 DISTRIBUTION

The system water pressure is maintained through continuous pumping. Water pumped in excess of system demand is circulated back to the reservoir.

3.1.3 SAMPLING AND ANALYSIS

The distribution system's water is sampled and analyzed once a week, and the chlorine residual is analyzed twice a week. Refer to Appendix A.1 for sampling details.

FIGURE 3-1: MAP OF DRINKING WATER SYSTEM



3.2 PROVISION OF DRINKING WATER TO OTHER MUNICIPALITIES

No municipal drinking water systems receive water from the Hamilton Drinking Water System, Fifty Road Subsystem.

3.3 WATER TREATMENT CHEMICALS USED DURING THIS REPORTING PERIOD

- sodium hypochlorite (chlorine)

3.4 BREAKDOWN OF SIGNIFICANT MONETARY EXPENSES

In February 2024, a cybersecurity incident caused an information technology (IT) outage that affected multiple systems across the City of Hamilton's network. Although some systems have been restored since then, the work order system and databases containing information related to expenses for the drinking water systems have not yet been recovered.

3.5 ADVERSE TEST RESULTS AND REPORTABLE INCIDENTS

The following outlines the notices submitted in accordance with subsection 18(1) of the Safe Drinking Water Act or section 16-4 of Schedule 16 of O.Reg. 170/03 and reported to the MECP, SAC.

There were no Adverse Water Quality Incidents from January 1, 2025, to December 31, 2025.

3.6 MECP INSPECTION FINDINGS AND SELF-DECLARED NON-COMPLIANCES

The following is a summary of findings that were either issued during a MECP inspection or self-declared during the 2025 calendar year.

The 2025-2026 inspection report was completed on September 12, 2025. The findings are reported in the table below.

TABLE 3-1: 2025-2026 MECP INSPECTION REPORT, SEPTEMBER 12, 2025

#	Finding Type	Finding	Status
1	Non-compliance	Logbooks were not properly maintained and/or did not contain the required information.	Action complete

3.7 SELF-DECLARED NON-COMPLIANCES

No self-declared non-compliances were reported for the Hamilton Drinking Water System, Fifty Road Subsystem in 2025.

3.8 WATER PRODUCTION REPORTS – SUMMARY

The Memorandum of Understanding between the Town of Grimsby and the City of Hamilton does not include a rated capacity. The City of Hamilton is working with the Town of Grimsby to negotiate a Water Supply Agreement.

4. FREELTON DRINKING WATER SYSTEM WATER QUALITY ANNUAL REPORT

4.1 GENERAL INFORMATION

The Freelton Drinking Water System consists of two wells, each with their own treatment facility, one elevated water storage tank, and sampling and analysis. This system serves an approximate population of 804 residents. Groundwater is the municipal water source for the community of Freelton.

Drinking Water System Number	Drinking Water System Name	Drinking Water System Owner	Drinking Water System Category	Reporting Period
220004117	Freelton Drinking Water System FDF01, FDF03	City of Hamilton	Large Municipal Residential	January 1, 2025 to December 31, 2025

4.1.1 WATER WELLS

- Well FDF01 is a 250 mm diameter, approximately 21-metre-deep drilled groundwater well.
- Well FDF03 is a 300 mm diameter, approximately 50-metre-deep drilled groundwater well.

4.1.2 TREATMENT

- Sodium hypochlorite (chlorine) is used at each well location within a free chlorine contact chamber to ensure disinfection of the water prior to it entering the distribution system.
- Hydrofluorosilicic acid (fluoride) and phosphoric acid (orthophosphate) are not added as part of the treatment process.

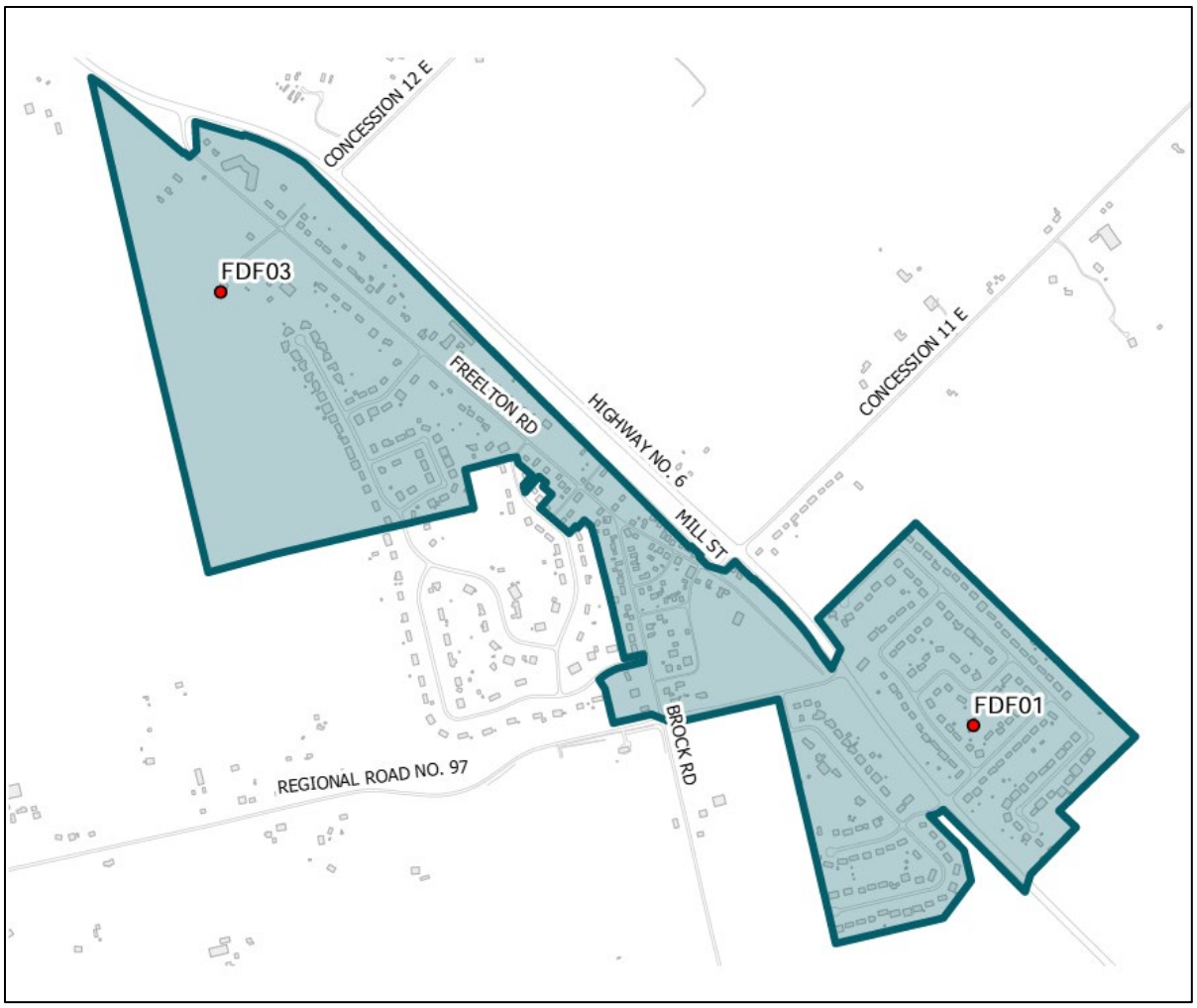
4.1.3 WATER STORAGE

An elevated water storage tank with an operating capacity of 2,840 m³ is available for peak-hour water demand equalization and fire and emergency storage.

4.1.4 SAMPLING AND ANALYSIS

On-line chlorine residual and turbidity analyzers continually monitor the treatment process and water quality. Raw, treated, and distributed water is sampled and analyzed weekly, and chlorine residual in the distribution system is analyzed daily. Refer to Appendix A.1 for sampling details.

FIGURE 4-1: MAP OF FREELTON DRINKING WATER SYSTEM



4.2 PROVISION OF DRINKING WATER TO OTHER MUNICIPALITIES

No municipal drinking water systems receive drinking water from the Freelton Drinking Water System.

4.3 WATER TREATMENT CHEMICALS USED DURING THIS REPORTING PERIOD

- sodium hypochlorite (chlorine)

4.4 BREAKDOWN OF SIGNIFICANT MONETARY EXPENSES

In February 2024, a cybersecurity incident caused an information technology (IT) outage that affected multiple systems across the City of Hamilton's network. Although some systems have been restored since then, the work order system and databases containing information related to expenses for the drinking water systems have not yet been recovered.

4.5 ADVERSE TEST RESULTS AND REPORTABLE INCIDENTS

The following outlines the notices submitted in accordance with subsection 18(1) of the Safe Drinking Water Act or section 16-4 of Schedule 16 of O.Reg. 170/03 and reported to the MECP, SAC.

Notification Date (y-m-d)	Location	Adverse Water Quality Incident	Resolution
2025-05-28	Freelton Drinking Water System	FDF01 Treated: Sodium = 54.7 mg/L FDF03 Treated: Sodium = 56.2 mg/L (Regulatory requirement is maximum of 20 mg/L. Notification required only once every 57 months)	Resampled adverse location. Sodium adverse was confirmed. Residents were mailed a letter, written by Public Health Services (PHS) about sodium.

4.6 MECP INSPECTION FINDINGS AND SELF-DECLARED NON-COMPLIANCES

The following is a summary of findings that were either issued during an MECP inspection or self-declared during the 2025 calendar year.

The 2025-2026 inspection report was completed on November 27, 2025. The findings are reported in the table below.

TABLE 4-1: 2025-2026 MECP INSPECTION REPORT, NOVEMBER 27, 2025

#	Finding Type	Finding	Status
1	Non-compliance	Logbooks were not properly maintained and/or did not contain the required information.	Action Complete

#	Finding Type	Finding	Status
2	Non-compliance	All continuous analysers were not calibrated, maintained, and operated in accordance with the manufacturer's instructions or the regulation.	Action Complete

4.6.1 SELF-DECLARED NON-COMPLIANCES

No self-declared non-compliances were reported for the Freelton Drinking Water System in 2025.

4.7 WATER PRODUCTION REPORTS – SUMMARY

The following provides a summary of daily flow rates and instantaneous peak flow rates in comparison to the capacity of the waterworks as identified in the Permit to Take Water (PTTW) and Municipal Drinking Water Licence (MDWL). This information is tabulated in the accompanying tables.

TABLE 4-2: FREELTON WELL (FDF01) – 2025 MONTHLY PRODUCTION (SUMMARY)

Month	Monthly Total Flow (m^3)	Average Daily Rate (m^3/d)	Maximum Daily Rate (m^3/d)	PTTW Daily Limit (m^3/d)	MDWL Daily Rated Capacity (m^3/d)
January	5,426	175	622	1,584	878
February	5,749	205	592	1,584	878
March	8,103	261	699	1,584	878
April	7,658	255	673	1,584	878
May	6,271	202	479	1,584	878
June	6,947	232	669	1,584	878
July	9,248	298	663	1,584	878
August	7,075	228	631	1,584	878
September	5,749	192	610	1,584	878
October	3,083	99	495	1,584	878

Month	Monthly Total Flow (m^3)	Average Daily Rate (m^3/d)	Maximum Daily Rate (m^3/d)	PTTW Daily Limit (m^3/d)	MDWL Daily Rated Capacity (m^3/d)
November	2,568	86	480	1,584	878
December	4,650	150	599	1,584	878

FIGURE 4-2: FREELTON WELL (FDF01) – 2025 MONTHLY PRODUCTION (SUMMARY)

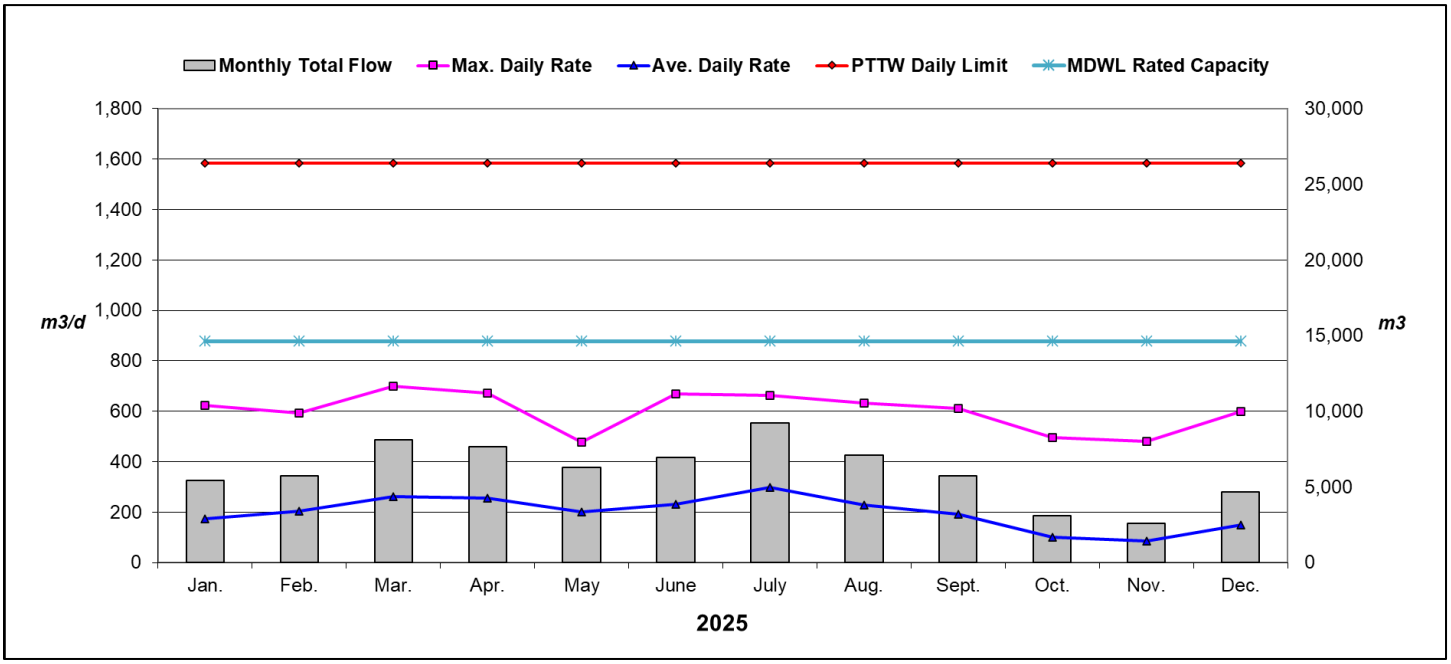


TABLE 4-3: FREELTON WELL (FDF03) – 2025 MONTHLY PRODUCTION (SUMMARY)

Month	Monthly Total Flow (m^3)	Average Daily Rate (m^3/d)	Maximum Daily Rate (m^3/d)	PTTW Daily Limit (m^3/d)	MDWL Daily Rated Capacity (m^3/d)
January	5,156	166	574	1,607	1,607
February	5,121	183	537	1,607	1,607
March	8,168	263	652	1,607	1,607
April	7,431	248	654	1,607	1,607
May	7,596	245	655	1,607	1,607

Month	Monthly Total Flow (m^3)	Average Daily Rate (m^3/d)	Maximum Daily Rate (m^3/d)	PTTW Daily Limit (m^3/d)	MDWL Daily Rated Capacity (m^3/d)
June	9,132	304	655	1,607	1,607
July	9,403	303	676	1,607	1,607
August	7,003	226	683	1,607	1,607
September	5,165	172	574	1,607	1,607
October	5,315	171	684	1,607	1,607
November	5,854	195	672	1,607	1,607
December	4,480	145	572	1,607	1,607

FIGURE 4-3: FREELTON WELL (FDF03) – 2025 MONTHLY PRODUCTION (SUMMARY)

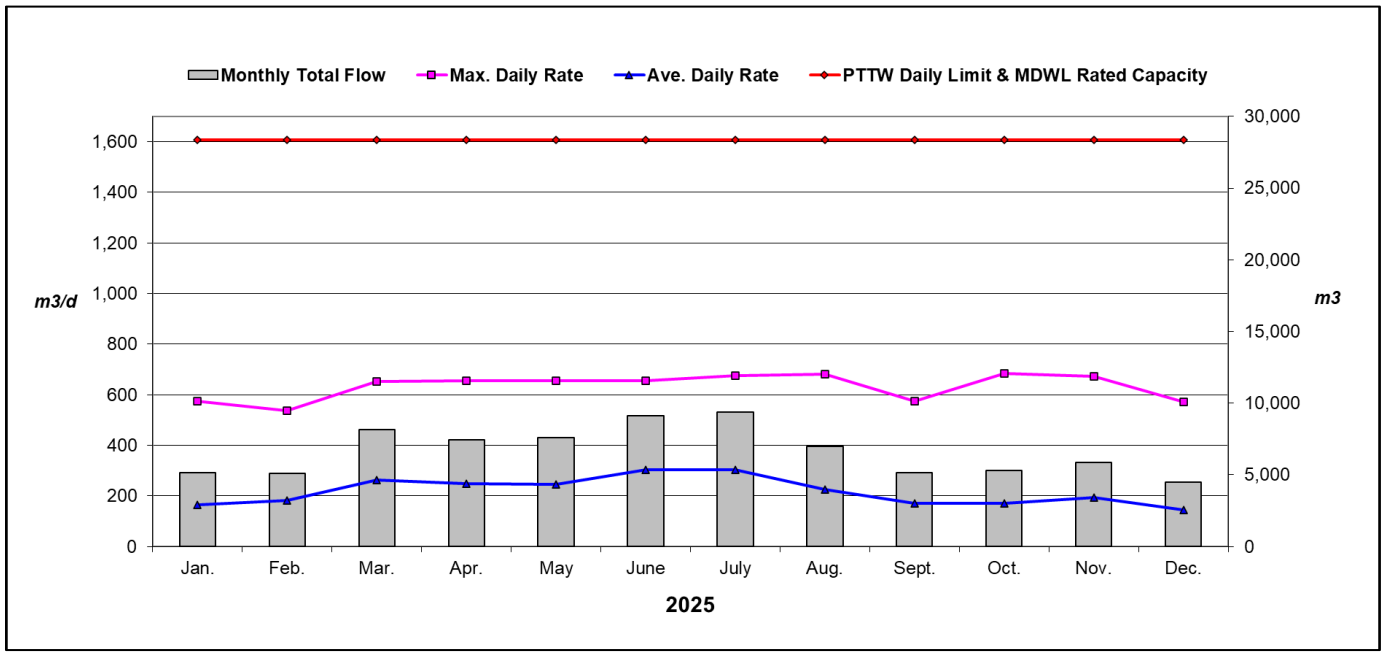
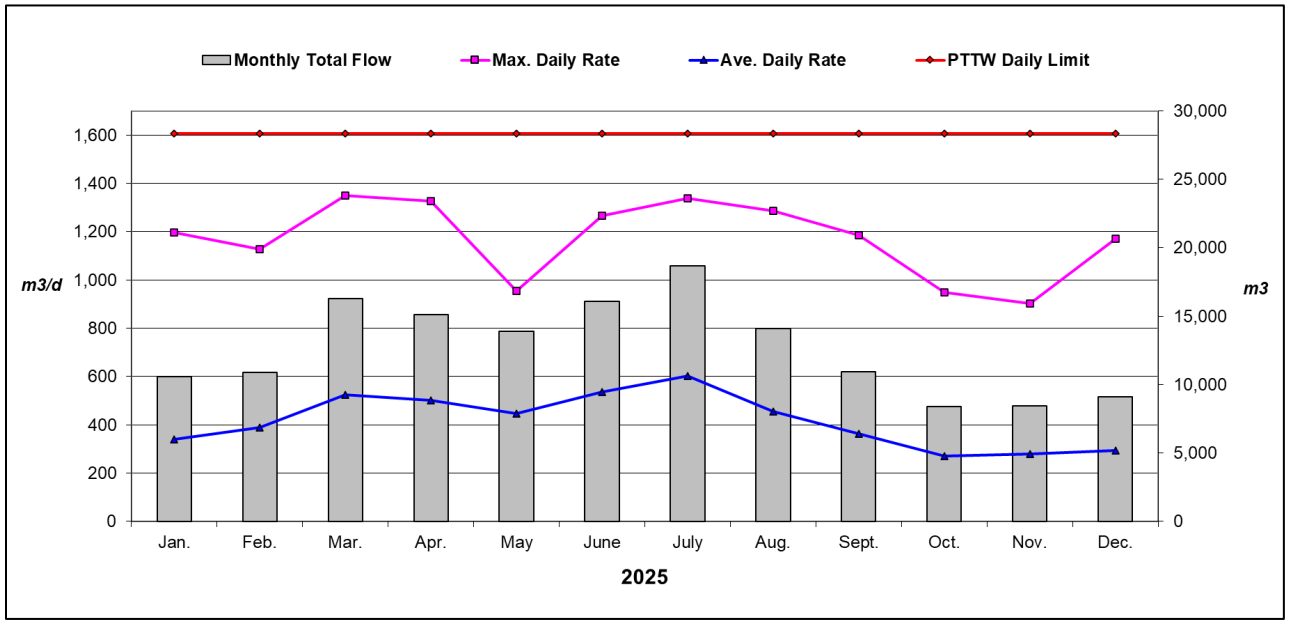


TABLE 4-4: FREELTON WELL (FDF01 AND FDF03) – 2025 MONTHLY PRODUCTION (SUMMARY)

Month	Monthly Total Flow (m^3)	Average Daily Rate (m^3/d)	Maximum Daily Rate (m^3/d)	PTTW Daily Limit (m^3/d)	MDWL Daily Rated Capacity (m^3/d)
January	10,583	341	1,197	1,607	n/a
February	10,871	388	1,128	1,607	n/a
March	16,270	525	1,350	1,607	n/a
April	15,088	503	1,328	1,607	n/a
May	13,867	447	954	1,607	n/a
June	16,078	536	1,266	1,607	n/a
July	18,651	602	1,339	1,607	n/a
August	14,079	454	1,288	1,607	n/a
September	10,915	364	1,184	1,607	n/a
October	8,398	271	948	1,607	n/a
November	8,422	281	902	1,607	n/a
December	9,130	295	1,171	1,607	n/a

FIGURE 4-4: FREELTON WELL (FDF01 AND FDF03) – 2025 MONTHLY PRODUCTION (SUMMARY)



5. GREENSVILLE DRINKING WATER SYSTEM WATER QUALITY ANNUAL REPORT

5.1 GENERAL INFORMATION

The Greensville Drinking Water System consists of one well, one treatment facility, and sampling and analysis, serving an approximate population of 111 residents. Groundwater is the municipal water source for the community of Greensville.

Drinking Water System Number	Drinking Water System Name	Drinking Water System Owner	Drinking Water System Category	Reporting Period
220004126	Greensville Drinking Water System FDG01	City of Hamilton	Small Municipal Residential	January 1, 2025 to December 31, 2025

5.1.1 WATER WELL

Greensville Well FDG01 is a 150 mm diameter, approximately 12-metre-deep drilled groundwater well under the direct influence of surface water (GUDI).

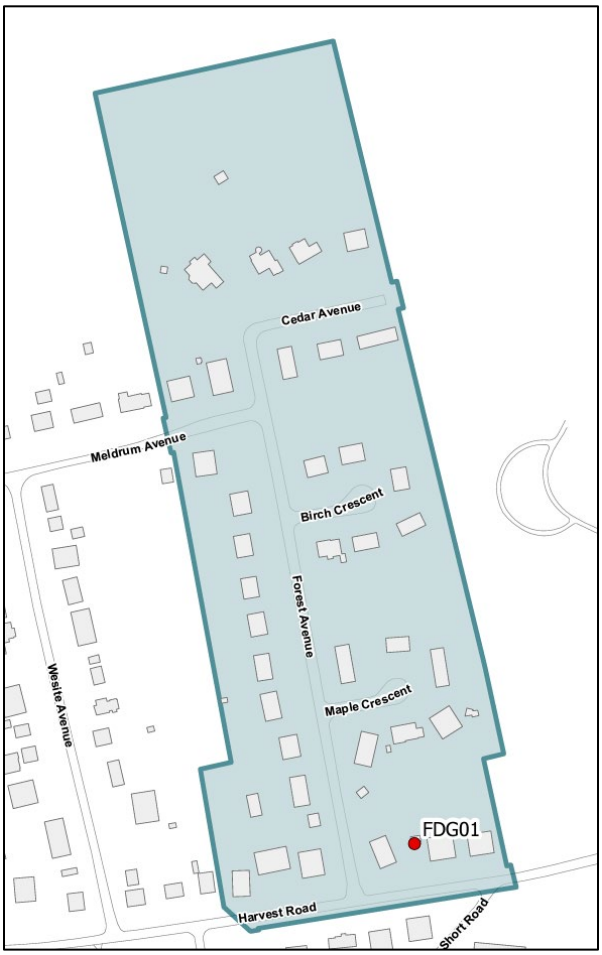
5.1.2 TREATMENT

- Water passes through two-stage cartridge filters and is disinfected using ultraviolet light and sodium hypochlorite (chlorine) before entering the distribution system.
- A free chlorine contact chamber is used to ensure disinfection of the water.
- Hydrofluorosilicic acid (fluoride) and phosphoric acid (orthophosphate) are not added as part of the treatment process.
- Hydropneumatic pressure tanks are used to control system pressures.

5.1.3 SAMPLING AND ANALYSIS

The treatment facility is equipped with online chlorine residual and turbidity analyzers that continually monitor the treated water quality. Raw, treated, and distributed water is sampled and analyzed weekly. Refer to Appendix A.1 for sampling details. In addition, chlorine residual in the distribution system is analyzed daily.

FIGURE 5-1: MAP OF GREENSVILLE DRINKING WATER SYSTEM



5.2 PROVISION OF DRINKING WATER TO OTHER MUNICIPALITIES

No municipal drinking water systems receive drinking water from the Greensville Drinking Water System.

5.3 WATER TREATMENT CHEMICALS USED DURING THIS REPORTING PERIOD

- sodium hypochlorite (chlorine)

5.4 BREAKDOWN OF SIGNIFICANT MONETARY EXPENSES

In February 2024, a cybersecurity incident caused an information technology (IT) outage that affected multiple systems across the City of Hamilton's network. Although some systems have been restored since then, the work order system and databases containing information related to expenses for the drinking water systems have not yet been recovered.

5.5 ADVERSE TEST RESULTS AND REPORTABLE INCIDENTS

The following outlines the notices submitted in accordance with subsection 18(1) of the Safe Drinking Water Act or section 16-4 of Schedule 16 of O.Reg. 170/03 and reported to the MECP, SAC.

Notification Date (y-m-d)	Location	Adverse Water Quality Incident	Resolution
2025-05-29	Greensville Drinking Water System	FDG01 Treated: Sodium = 120 mg/L (Regulatory requirement is maximum of 20 mg/L. Notification required only once every 57 months)	Resampled adverse location. Sodium adverse was confirmed. Residents were mailed a letter, written by Public Health Services (PHS) about sodium.

5.6 MECP INSPECTION FINDINGS AND SELF-DECLARED NON-COMPLIANCES

The following is a summary of findings that were either issued during a MECP inspection or self-declared during the 2025 calendar year.

The 2024-2025 inspection report was completed on January 24, 2025 and the findings of non-compliance are reported in the table below.

The 2025-2026 inspection report commenced and remains pending as of December 31, 2025.

TABLE 5-1: 2024-2025 MECP INSPECTION REPORT, JANUARY 24, 2025

#	Finding Type	Finding	Status
1	Non-compliance	All parts of the drinking water system were not disinfected in accordance with a procedure listed in Schedule B of the Drinking Water Works Permit.	Action complete

5.6.1 SELF-DECLARED NON-COMPLIANCES

No self-declared non-compliances were reported for the Greensville Drinking Water System in 2025.

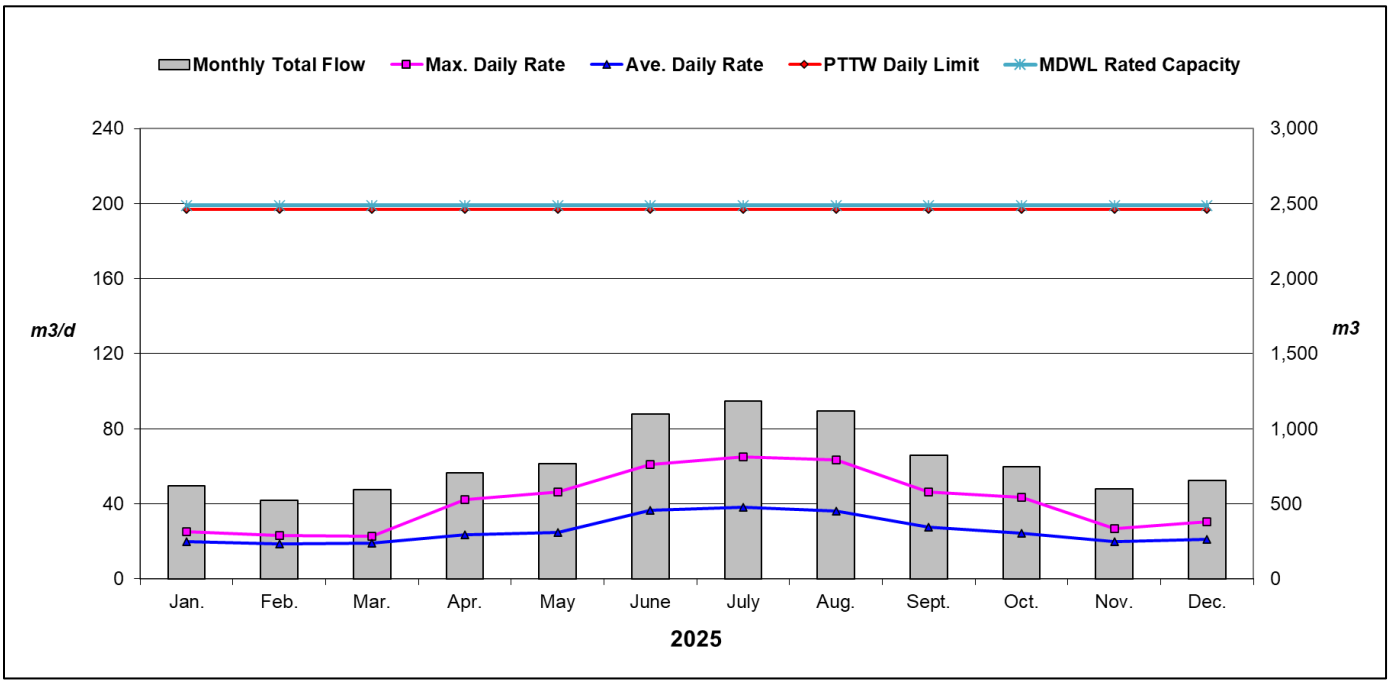
5.7 WATER PRODUCTION REPORTS – SUMMARY

The following provides a summary of daily flow rates and instantaneous peak flow rates in comparison to the capacity of the waterworks as identified in the Permit to Take Water (PTTW) and Municipal Drinking Water Licence (MDWL). This information is tabulated in the accompanying tables.

TABLE 5-2: GREENSVILLE WELL (FDG01) – 2025 MONTHLY PRODUCTION (SUMMARY)

Month	Monthly Total Flow (m^3)	Average Daily Rate (m^3/d)	Maximum Daily Rate (m^3/d)	PTTW Daily Limit (m^3/d)	MDWL Daily Rated Capacity (m^3/d)
January	620	20	25	197	199
February	523	19	23	197	199
March	593	19	23	197	199
April	704	23	42	197	199
May	765	25	46	197	199
June	1,099	37	61	197	199
July	1,186	38	65	197	199
August	1,116	36	63	197	199
September	823	27	46	197	199
October	749	24	43	197	199
November	597	20	27	197	199
December	653	21	30	197	199

FIGURE 5-2: GREENSVILLE WELL (FDG01) – 2025 MONTHLY PRODUCTION (SUMMARY)



6. CARLISLE DRINKING WATER SYSTEM WATER QUALITY ANNUAL REPORT

6.1 GENERAL INFORMATION

The Carlisle Drinking Water System consists of four wells, one elevated water storage tank, two treatment facilities, and sampling and analysis. It serves a population of approximately 1,833 residents. The municipal water source for the community of Carlisle is groundwater.

Drinking Water System Number	Drinking Water System Name	Drinking Water System Owner	Drinking Water System Category	Reporting Period
220004108	Carlisle Drinking Water System FDC01, FDC02, FDC03R, FDC05, FDC06	City of Hamilton	Large Municipal Residential	January 1, 2025 to December 31, 2025

6.1.1 WATER WELLS

- Well FDC01 is a drilled groundwater well and has a diameter of 157 mm and a depth of approximately 42 m.
- Well FDC02 is a drilled groundwater well and has a diameter of 300 mm at a depth of 2.6 m and a diameter of 250 mm to a depth of 36 m.
- Well FDC03R has a diameter of 200 mm and a depth of approximately 33.5 m. It is a drilled groundwater well under the influence of surface water (GUDI).
- Well FDC05 has a diameter of 214 mm and a depth of approximately 28 m. It is a drilled groundwater well under the influence of surface water (GUDI).
- Well FDC06 is planned for construction.

6.1.2 TREATMENT

- Within the treatment facility, wells FDC01 and FDC02 are joined to a common header for flow metering and disinfection. Sodium hypochlorite (chlorine) is added within a free chlorine contact chamber to disinfect the water.
- Within the treatment facility, wells FDC03R and FDC05 have separate flow metering, filtration and ultraviolet light disinfection streams. The flows are combined for treatment by sodium hypochlorite (chlorine) within a contact chamber to ensure disinfection of the water prior to entering the distribution system.
- Hydrofluorosilicic acid (fluoride) and phosphoric acid (orthophosphate) are not added as part of the treatment process.

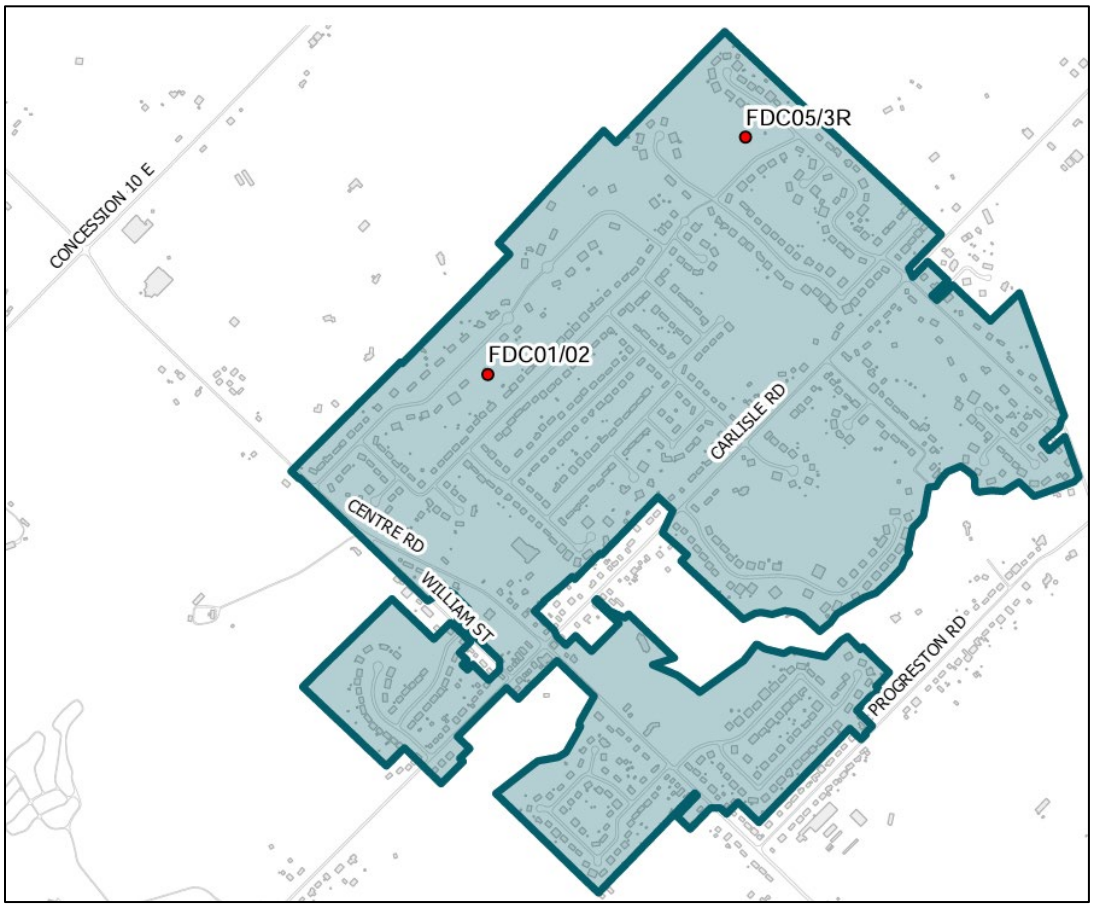
6.1.3 WATER STORAGE

An elevated water storage tank is located at the same site as wells FDC01 and FDC02. The storage tank has an operating capacity of 1,400 m³. It was designed for peak-hour water demand equalization and fire and emergency storage.

6.1.4 SAMPLING AND ANALYSIS

All treatment facilities are equipped with online chlorine residual and turbidity analyzers that continually monitor the treated water quality. Raw, treated, and distribution water is sampled and analyzed weekly, and chlorine residual in the distribution system is analyzed daily. Refer to Appendix A.1 for sampling details.

FIGURE 6-1: MAP OF CARLISLE DRINKING WATER SYSTEM



6.2 PROVISION OF DRINKING WATER TO OTHER MUNICIPALITIES

No municipal drinking water systems receive drinking water from the Carlisle Drinking Water System.

6.3 WATER TREATMENT CHEMICALS USED DURING THIS REPORTING PERIOD

- sodium hypochlorite (chlorine)

6.4 BREAKDOWN OF SIGNIFICANT MONETARY EXPENSES

In February 2024, a cybersecurity incident caused an information technology (IT) outage that affected multiple systems across the City of Hamilton's network. Although some systems have been restored since then, the work order system and databases containing information related to expenses for the drinking water systems have not yet been recovered.

6.5 ADVERSE TEST RESULTS AND REPORTABLE INCIDENTS

The following outlines the notices submitted in accordance with subsection 18(1) of the Safe Drinking Water Act or section 16-4 of Schedule 16 of O.Reg. 170/03 and reported to the MECP, SAC.

Notification Date (y-m-d)	Location	Adverse Water Quality Incident	Resolution
2025-05-28	Carlisle Drinking Water System	FDC01 Treated: Sodium = 52.6 mg/L (Regulatory requirement is maximum of 20 mg/L. Notification required only once every 57 months.)	Resampled adverse location. Sodium adverse was confirmed. Residents were mailed a letter, written by Public Health Services (PHS) about sodium.
2025-05-29	Carlisle Drinking Water System	FDC03R Treated: Sodium = 51.0 mg/L FDC05 Treated: Sodium = 51.4 mg/L (Regulatory requirement is maximum of 20 mg/L. Notification required only once every 57 months.)	Resampled adverse location. Sodium adverse was confirmed. Residents were mailed a letter, written by Public Health Services (PHS) about sodium.
2025-07-30	C-SS-C, Carlisle Sampling Station C, beside 1493 Centre Rd	Total Coliforms = Present (Regulatory requirement is Not Detectable)	Resampled adverse location, one upstream and one downstream location. All results passed.

6.6 MECP INSPECTION FINDINGS AND SELF-DECLARED NON-COMPLIANCES

The following is a summary of findings that were either issued during a MECP inspection or self-declared during the 2025 calendar year.

The 2025-2026 inspection report was completed on September 17, 2025 and the findings are reported in the table below.

TABLE 6-1: 2025-2026 MECP INSPECTION REPORT, SEPTEMBER 17, 2025

#	Finding Type	Finding	Status
1	Non-compliance	All continuous analyzers were not calibrated, maintained, and operated in accordance with the manufacturer's instructions or the regulation.	Action complete

6.6.1 SELF-DECLARED NON-COMPLIANCES

No self-declared non-compliances were reported for the Carlisle Drinking Water System in 2025.

6.7 WATER PRODUCTION REPORTS – SUMMARY

The following provides a summary of daily flow rates and instantaneous peak flow rates in comparison to the capacity of the waterworks as identified in the Permit to Take Water (PTTW) and Municipal Drinking Water Licence (MDWL). This information is tabulated in the accompanying tables.

TABLE 6-2: CARLISLE WELL (FDC01) – 2025 MONTHLY PRODUCTION (SUMMARY)

Month	Monthly Total Flow (m^3)	Average Daily Rate (m^3/d)	Maximum Daily Rate (m^3/d)	PTTW Daily Limit (m^3/d)	MDWL Daily Rated Capacity (m^3/d)
January	1,242	40	133	851	n/a
February	1,198	43	169	851	n/a
March	1,779	57	223	851	n/a
April	383	13	138	851	n/a
May	360	12	134	851	n/a
June	931	31	226	851	n/a
July	1,979	64	214	851	n/a
August	666	21	135	851	n/a
September	1,318	44	241	851	n/a
October	1,482	48	191	851	n/a

Month	Monthly Total Flow (m^3)	Average Daily Rate (m^3/d)	Maximum Daily Rate (m^3/d)	PTTW Daily Limit (m^3/d)	MDWL Daily Rated Capacity (m^3/d)
November	848	28	217	851	n/a
December	741	24	154	851	n/a

FIGURE 6-2: CARLISLE WELL (FDC01) – 2025 MONTHLY PRODUCTION (SUMMARY)

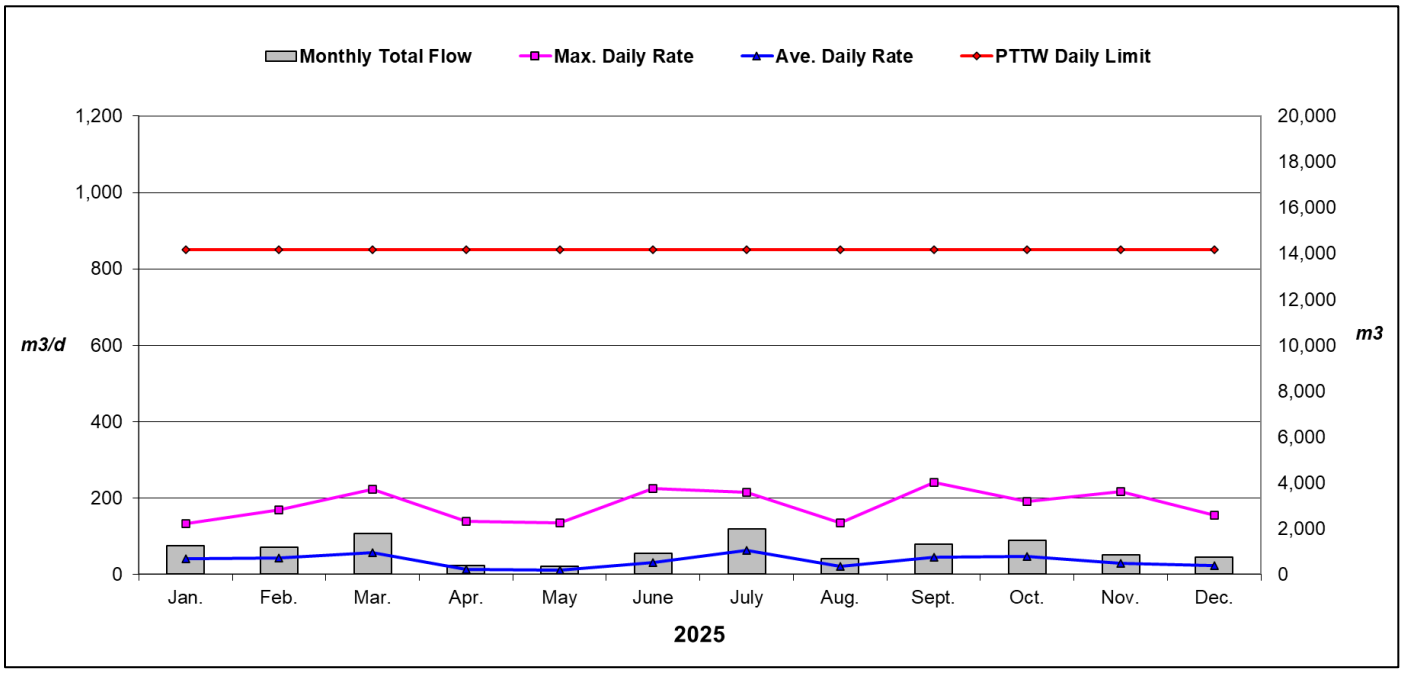


TABLE 6-3: CARLISLE WELL (FDC02) – 2025 MONTHLY PRODUCTION (SUMMARY)

Month	Monthly Total Flow (m^3)	Average Daily Rate (m^3/d)	Maximum Daily Rate (m^3/d)	PTTW Daily Limit (m^3/d)	MDWL Daily Rated Capacity (m^3/d)
January	737	24	300	851	n/a
February	0	0	0	851	n/a
March	15	0	15	851	n/a
April	0	0	0	851	n/a
May	36	1	36	851	n/a
June	0	0	0	851	n/a

Month	Monthly Total Flow (m^3)	Average Daily Rate (m^3/d)	Maximum Daily Rate (m^3/d)	PTTW Daily Limit (m^3/d)	MDWL Daily Rated Capacity (m^3/d)
July	28	1	28	851	n/a
August	589	19	118	851	n/a
September	34	1	15	851	n/a
October	0	0	0	851	n/a
November	89	3	40	851	n/a
December	1,277	41	230	851	n/a

FIGURE 6-3: CARLISLE WELL (FDC02) – 2025 MONTHLY PRODUCTION (SUMMARY)

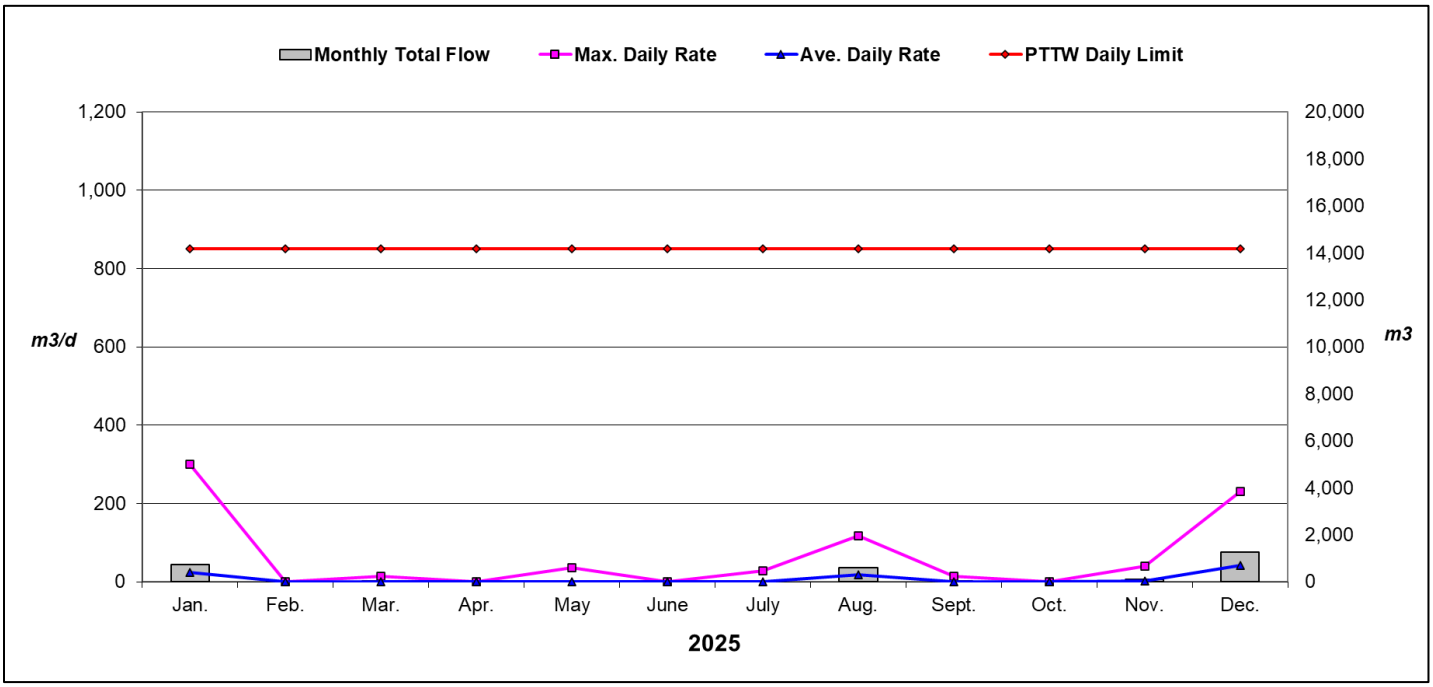


TABLE 6-4: CARLISLE WELL (FDC01 AND FDC02) – 2025 MONTHLY PRODUCTION (SUMMARY)

Month	Monthly Total Flow (m^3)	Average Daily Rate (m^3/d)	Maximum Daily Rate (m^3/d)	PTTW Daily Limit (m^3/d)	MDWL Daily Rated Capacity (m^3/d)
January	1,979	64	332	1,702	851
February	1,198	43	169	1,702	851

Month	Monthly Total Flow (m^3)	Average Daily Rate (m^3/d)	Maximum Daily Rate (m^3/d)	PTTW Daily Limit (m^3/d)	MDWL Daily Rated Capacity (m^3/d)
March	1,793	58	223	1,702	851
April	383	13	138	1,702	851
May	396	13	134	1,702	851
June	931	31	226	1,702	851
July	2,007	65	214	1,702	851
August	1,255	40	238	1,702	851
September	1,352	45	241	1,702	851
October	1,482	48	191	1,702	851
November	938	31	217	1,702	851
December	2,018	65	230	1,702	851

FIGURE 6-4: CARLISLE WELL (FDC01 AND FDC02) – 2025 MONTHLY PRODUCTION (SUMMARY)

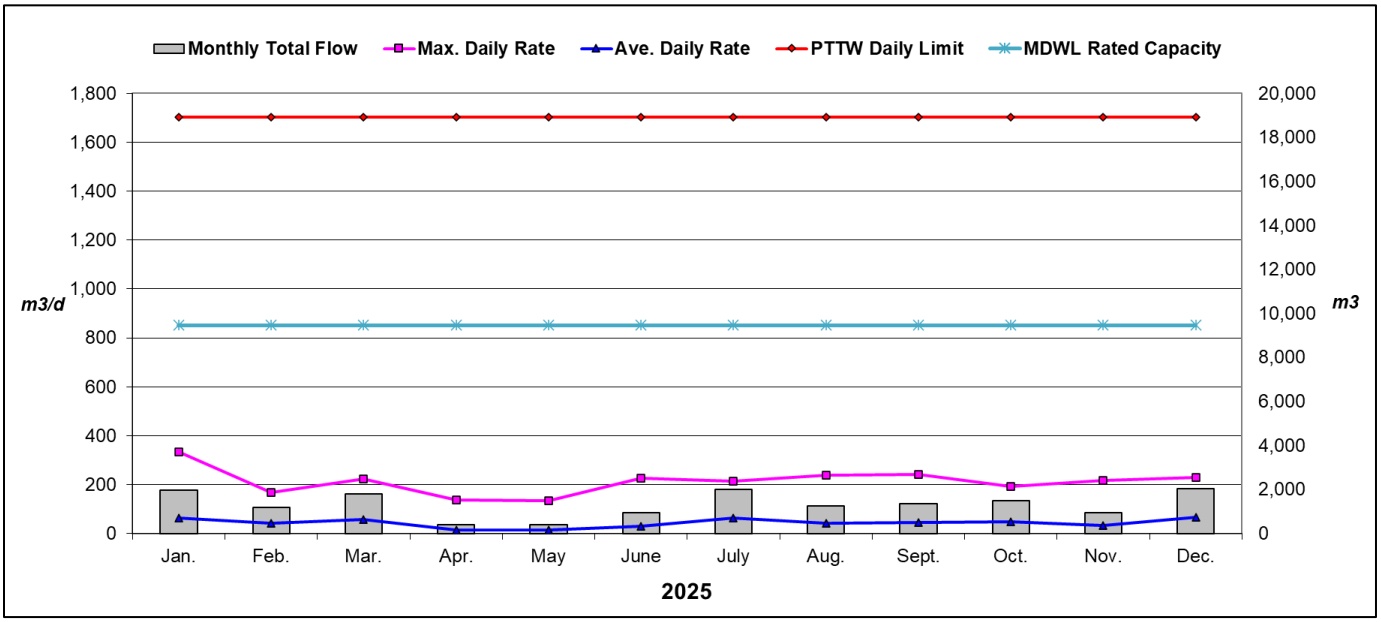


TABLE 6-5: CARLISLE WELL (FDC03R) – 2025 MONTHLY PRODUCTION (SUMMARY)

Month	Monthly Total Flow (m^3)	Average Daily Rate (m^3/d)	Maximum Daily Rate (m^3/d)	PTTW Daily Limit (m^3/d)	MDWL Daily Rated Capacity (m^3/d)
January	5,015	162	546	2,160	n/a
February	3,068	110	619	2,160	n/a
March	7,097	229	598	2,160	n/a
April	4,275	143	620	2,160	n/a
May	5,467	176	648	2,160	n/a
June	13,433	448	918	2,160	n/a
July	18,971	612	965	2,160	n/a
August	22,738	733	1,365	2,160	n/a
September	13,411	447	871	2,160	n/a
October	5,107	165	607	2,160	n/a
November	4,524	151	613	2,160	n/a
December	3,403	110	570	2,160	n/a

FIGURE 6-5: CARLISLE WELL (FDC03R) – 2025 MONTHLY PRODUCTION (SUMMARY)

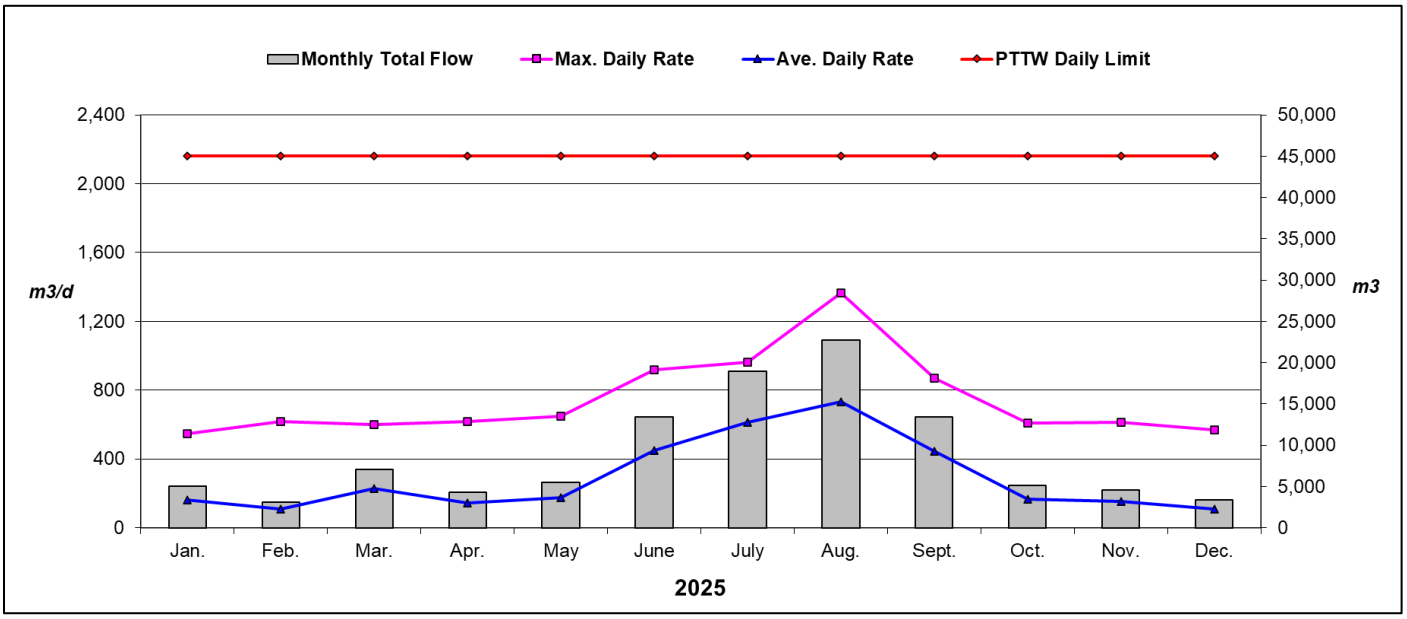


TABLE 6-6: CARLISLE WELL (FDC05) – 2025 MONTHLY PRODUCTION (SUMMARY)

Month	Monthly Total Flow (m^3)	Average Daily Rate (m^3/d)	Maximum Daily Rate (m^3/d)	PTTW Daily Limit (m^3/d)	MDWL Daily Rated Capacity (m^3/d)
January	8,556	276	853	1,296	n/a
February	10,061	359	762	1,296	n/a
March	6,977	225	747	1,296	n/a
April	11,430	381	834	1,296	n/a
May	14,985	483	988	1,296	n/a
June	18,318	611	1,088	1,296	n/a
July	16,956	547	966	1,296	n/a
August	17,577	567	1,031	1,296	n/a
September	14,664	489	821	1,296	n/a
October	10,446	337	710	1,296	n/a
November	7,105	237	652	1,296	n/a
December	10,412	336	759	1,296	n/a

FIGURE 6-6: CARLISLE WELL (FDC05) – 2025 MONTHLY PRODUCTION (SUMMARY)

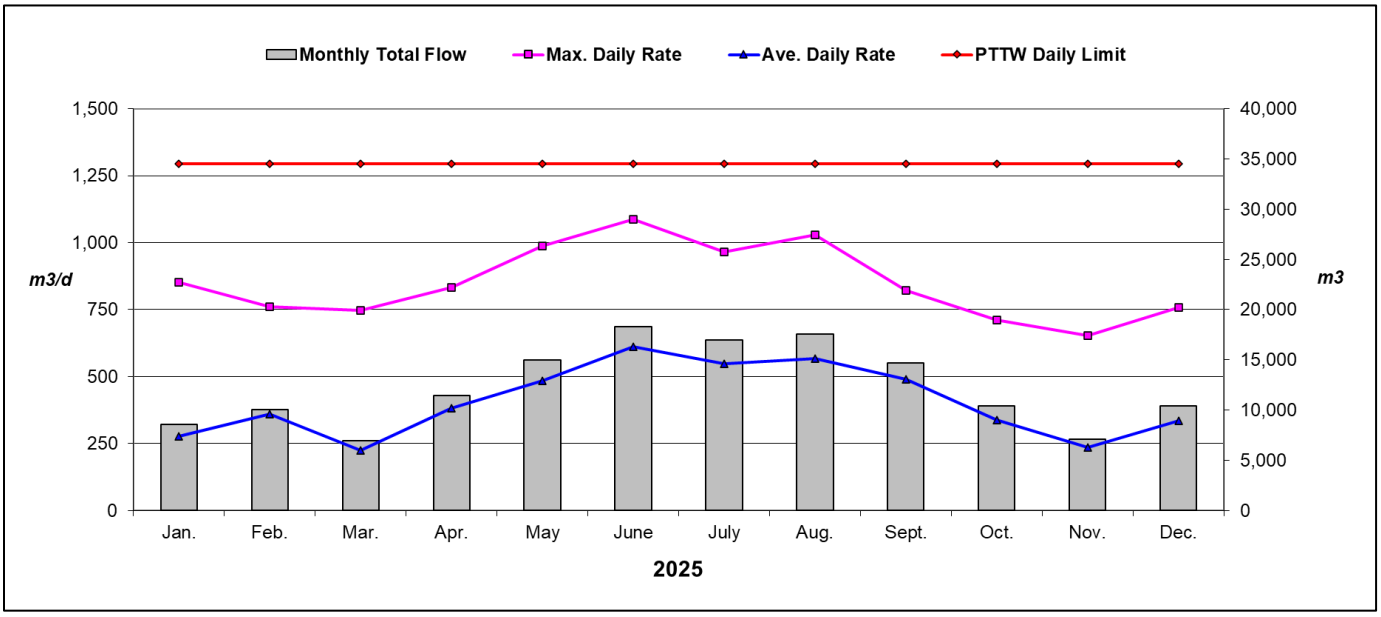
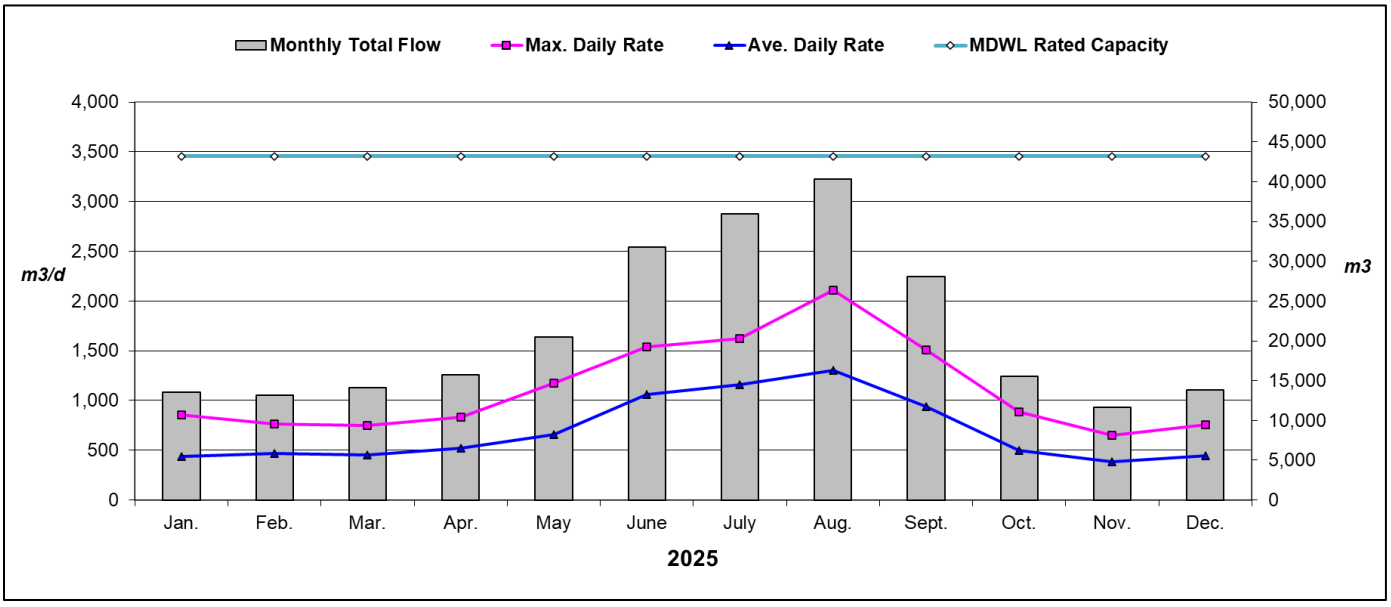


TABLE 6-7: CARLISLE WELL (FDC03R AND FDC05) – 2025 MONTHLY PRODUCTION (SUMMARY)

Month	Monthly Total Flow (m^3)	Average Daily Rate (m^3/d)	Maximum Daily Rate (m^3/d)	PTTW Daily Limit (m^3/d)	MDWL Daily Rated Capacity (m^3/d)
January	13,571	438	853	n/a	3,456
February	13,129	469	762	n/a	3,456
March	14,074	454	747	n/a	3,456
April	15,705	524	834	n/a	3,456
May	20,452	660	1,173	n/a	3,456
June	31,751	1,058	1,539	n/a	3,456
July	35,926	1,159	1,623	n/a	3,456
August	40,315	1,300	2,109	n/a	3,456
September	28,075	936	1,510	n/a	3,456
October	15,553	502	884	n/a	3,456
November	11,629	388	652	n/a	3,456
December	13,815	446	759	n/a	3,456

FIGURE 6-7: CARLISLE WELL (FDC03R AND FDC05) – 2025 MONTHLY PRODUCTION (SUMMARY)



7. LYNDEN DRINKING WATER SYSTEM WATER QUALITY ANNUAL REPORT

7.1 GENERAL INFORMATION

The Lynden Drinking Water System consists of two wells, one reservoir, one treatment facility, and sampling and analysis. It serves a population of approximately 393 residents. Groundwater is the municipal water source for the community of Lynden.

Drinking Water System Number	Drinking Water System Name	Drinking Water System Owner	Drinking Water System Category	Reporting Period
250001830	Lynden Drinking Water System FDL01 & FDL03	City of Hamilton	Large Municipal Residential	January 1, 2025 to December 31, 2025

7.1.1 WATER WELLS

- Well FDL01 was taken out of service on July 9, 2020 and was decommissioned on November 8, 2023. It will be replaced with a new well, FDL1R in 2026.
- Well FDL03 is a drilled groundwater well and has a diameter of 200 mm and a depth of 52 m.

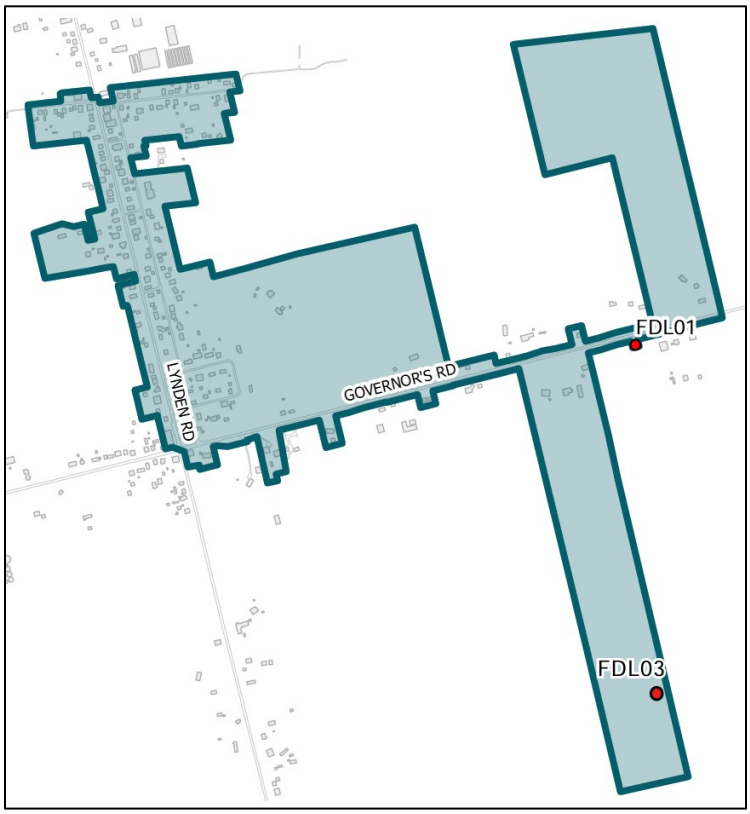
7.1.2 TREATMENT

- The treatment facility houses equipment to remove hydrogen sulphide (H2S) including a carbon dioxide injection system and air stripper. Following H2S removal, the treatment includes filtration through a cartridge filter and addition of sodium hypochlorite (chlorine). The reservoir acts as a chlorine contact chamber to ensure disinfection of the water.
- Hydrofluorosilicic acid (fluoride) and phosphoric acid (orthophosphate) are not added as part of the treatment process.

7.1.3 SAMPLING AND ANALYSIS

The treatment facility is equipped with online chlorine residual and turbidity analyzers that continually monitor the treated water quality. Raw, treated, and distributed water are sampled and analyzed weekly, and chlorine residual in the distribution system is analyzed daily. Refer to Appendix A.1 for sampling details.

FIGURE 7-1: MAP OF LYNDEN DRINKING WATER SYSTEM



7.2 PROVISION OF DRINKING WATER TO OTHER MUNICIPALITIES

No municipal drinking water systems receive drinking water from the Lynden Drinking Water System.

7.3 WATER TREATMENT CHEMICALS USED DURING THIS REPORTING PERIOD

- sodium hypochlorite (chlorine)
- carbon dioxide

7.4 BREAKDOWN OF SIGNIFICANT MONETARY EXPENSES

In February 2024, a cybersecurity incident caused an information technology (IT) outage that affected multiple systems across the City of Hamilton's network. Although some systems have been restored since then, the work order system and databases containing information related to expenses for the drinking water systems have not yet been recovered.

7.5 ADVERSE TEST RESULTS AND REPORTABLE INCIDENTS

The following outlines the notices submitted in accordance with subsection 18(1) of the Safe Drinking Water Act or section 16-4 of Schedule 16 of O.Reg. 170/03 and reported to the MECP, SAC.

Notification Date (y-m-d)	Location	Adverse Water Quality Incident	Resolution
2025-05-29	Lynden Drinking Water System	FDL03 Treated: Sodium = 56.3 mg/L (Regulatory requirement is maximum of 20 mg/L. Notification required only once every 57 months.)	Resampled adverse location. Sodium adverse was confirmed. Residents were mailed a letter, written by Public Health Services (PHS) about sodium.

7.6 MECP INSPECTION FINDINGS AND SELF-DECLARED NON-COMPLIANCES

The following is a summary of findings that were either issued during a MECP inspection or self-declared during the 2025 calendar year.

7.6.1 2024-2025 MECP INSPECTION REPORT, MARCH 18, 2025

The 2024-2025 inspection report was completed on March 18, 2025 and there were no findings of non-compliance for the inspection year.

The 2025-2026 inspection report remains pending as of December 31, 2025.

7.6.2 SELF-DECLARED NON-COMPLIANCES

No self-declared non-compliances were reported for the Lynden Drinking Water System in 2025.

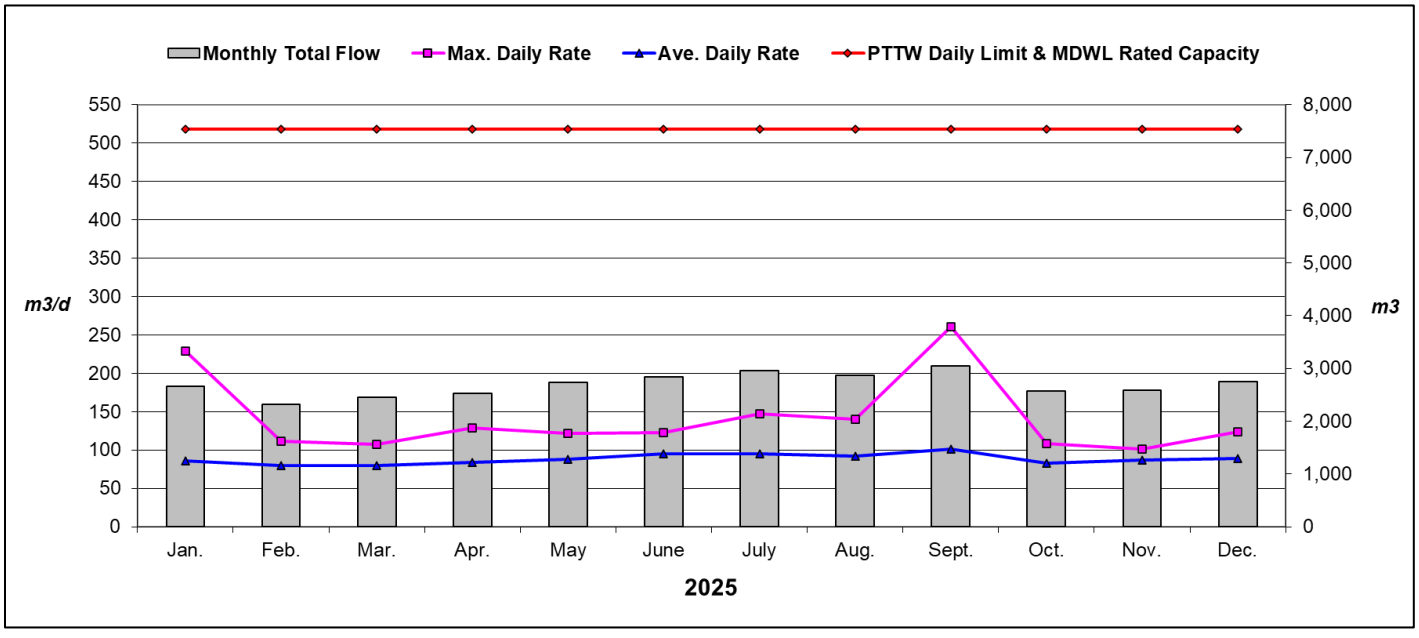
7.7 WATER PRODUCTION REPORTS – SUMMARY

TABLE 7-1: LYNDEN WELL (FDL03) – 2025 MONTHLY PRODUCTION (SUMMARY)

Month	Monthly Total Flow (m^3)	Average Daily Rate (m^3/d)	Maximum Daily Rate (m^3/d)	PTTW Daily Limit (m^3/d)	MDWL Daily Rated Capacity (m^3/d)
January	2,665	86	229	518	518

Month	Monthly Total Flow (m^3)	Average Daily Rate (m^3/d)	Maximum Daily Rate (m^3/d)	PTTW Daily Limit (m^3/d)	MDWL Daily Rated Capacity (m^3/d)
February	2,318	80	112	518	518
March	2,458	79	107	518	518
April	2,528	84	129	518	518
May	2,730	88	122	518	518
June	2,839	95	122	518	518
July	2,957	95	147	518	518
August	2,863	92	140	518	518
September	3,047	102	261	518	518
October	2,570	83	109	518	518
November	2,591	86	101	518	518
December	2,752	89	124	518	518

TABLE 7-2: LYNDEN WELL (FDL03) – 2025 MONTHLY PRODUCTION (SUMMARY)



2025

WATER QUALITY AND OPERATIONAL TESTING SUMMARY

Appendix A.1

Hamilton

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1. HAMILTON DRINKING WATER SYSTEM, WOODWARD SUBSYSTEM

1.1 DEFINITIONS

AWQI: Adverse Water Quality Incident

CFU: Colony Forming Unit

MPN: Most Probable Number

mg/L: milligrams per litre

mL: millilitre

N/A: Not Applicable

NTU: Nephelometric Turbidity Unit

ug/L: microgram per litre

P/A: Present/Absent

CU: Colour Units

C: degrees Celsius

1.2 LEAD TESTING

TABLE 1-1: SUMMARY OF LEAD TESTING UNDER SCHEDULE 15.1 OF REGULATION 170/03

Parameter	Points Sampled	Samples Taken	Result Value Range	Unit of Measure	Lead AWQI	Lead Exceedances
Distribution						
Alkalinity	20	20	85 to 87	mg/L	N/A	N/A
Lead	20	20	<0.0001 to 0.0012	mg/L	0	N/A
pH - Field	20	20	7.32 to 7.63	pH	N/A	N/A
Plumbing Non-Residential						
Lead	10	20	<0.0001 to 0.0048	mg/L	N/A	0
pH - Field	10	10	7.33 to 7.54	pH	N/A	N/A
Plumbing Residential						

Parameter	Points Sampled	Samples Taken	Result Value Range	Unit of Measure	Lead AWQI	Lead Exceedances
Lead	100	200	<0.0001 to 0.0086	mg/L	N/A	0
pH - Field	100	100	7.12 to 7.67	pH	N/A	N/A

1.3 MICROBIOLOGICAL TESTING

TABLE 1-2: MICROBIOLOGICAL TESTING UNDER SCHEDULE 10, 11, 12 AND 17, 18 OF REGULATION 170/03

Parameter	Sample Date(s)	Number of Samples	Result Value Range	Unit of Measure
Raw				
Escherichia coli	2025-01-07 to 2025-12-30	52	0 to 22	MPN/100mL
Total Coliform	2025-01-07 to 2025-12-30	52	0 to 687	MPN/100mL
Treated				
Escherichia coli	2025-01-01 to 2025-12-31	569	ALL ABSENT	P/A/100mL
Heterotrophic Plate Count	2025-01-01 to 2025-12-31	334	0 to 9	CFU/1mL
Total Coliform	2025-01-01 to 2025-12-31	569	ALL ABSENT	P/A/100mL
Distribution				
Escherichia coli	2025-01-01 to 2025-12-31	1889	ALL ABSENT	P/A/100mL
Heterotrophic Plate Count	2025-01-06 to 2025-12-29	867	0 to 176	CFU/1mL
Total Coliform	2025-01-01 to 2025-12-31	1889	ALL ABSENT	P/A/100mL

1.4 OPERATIONAL TESTING

TABLE 1-3: OPERATIONAL TESTING UNDER SCHEDULE 7, 8 OR 9 OF REGULATION 170/03

NOTE: If results are obtained from continuous monitors, then 8760 is reported as the number of samples.

Parameter	Samples Taken	Result Value Range	Unit of Measure
Turbidity - Treated - Filter 1	8760	0.016 to 0.164	NTU
Turbidity - Treated - Filter 2	8760	0.019 to 0.318	NTU
Turbidity - Treated - Filter 3	8760	0.020 to 0.197	NTU
Turbidity - Treated - Filter 4	8760	0.017 to 0.332	NTU
Turbidity - Treated - Filter 5	8760	0.020 to 0.305	NTU
Turbidity - Treated - Filter 6	8760	0.022 to 0.483	NTU
Turbidity - Treated - Filter 7	8760	0.018 to 0.240	NTU
Turbidity - Treated - Filter 8	8760	0.020 to 0.523	NTU
Turbidity - Treated - Filter 9	8760	0.016 to 0.290	NTU
Turbidity - Treated - Filter 10	8760	0.017 to 0.355	NTU
Turbidity - Treated - Filter 11	8760	0.015 to 0.175	NTU
Turbidity - Treated - Filter 12	8760	0.024 to 0.310	NTU
Turbidity - Treated - Filter 13	8760	0.021 to 0.531	NTU
Turbidity - Treated - Filter 14	8760	0.015 to 0.125	NTU
Turbidity - Treated - Filter 15	8760	0.018 to 0.161	NTU
Turbidity - Treated - Filter 16	8760	0.017 to 0.105	NTU

Parameter	Samples Taken	Result Value Range	Unit of Measure
Turbidity - Treated - Filter 17	8760	0.016 to 0.128	NTU
Turbidity - Treated - Filter 18	8760	0.019 to 0.207	NTU
Turbidity - Treated - Filter 19	8760	0.019 to 0.115	NTU
Turbidity - Treated - Filter 20	8760	0.023 to 0.203	NTU
Turbidity - Treated - Filter 21	8760	0.025 to 0.185	NTU
Turbidity - Treated - Filter 22	N/A*	N/A*	NTU
Turbidity - Treated - Filter 23	8760	0.022 to 0.430	NTU
Turbidity - Treated - Filter 24	8760	0.024 to 0.283	NTU
Combined Chlorine - Treated	8760	1.42 to 3.04	mg/L
Free Chlorine - Distribution	1992	0 to 0.40	mg/L
Combined Chlorine - Distribution	1992	0.61 to 2.92	mg/L
Fluoride – Treated	8760	0.50 to 0.80	mg/L
*Filter 22 was out of service during this reporting period			

1.5 ADDITIONAL TESTING

TABLE 1-4: SUMMARY OF ADDITIONAL TESTING AND SAMPLING IN ACCORDANCE WITH A LICENCE, APPROVAL, ORDER OR OTHER LEGAL INSTRUMENT

NOTE: If results are obtained from continuous monitors, then 8760 is reported as the number of samples.

Parameter	Sample Date(s)	Result Value Range	Unit of Measure
Raw			

Parameter	Sample Date(s)	Result Value Range	Unit of Measure
Microcystins	2025-01-14 to 2025-12-09	<0.15 to 0.21	ug/L
Treated			
Alkalinity	2025-05-26 to 2025-11-11	85	mg/L
Chloride	2025-01-14 to 2025-12-09	28.3 to 41.6	mg/L
Colour (apparent)	2025-02-10 to 2025-11-03	<2 to 3	CU
Copper	2025-02-10 to 2025-11-03	0.0003 to 0.0005	mg/L
Iron	2025-02-10 to 2025-11-03	<0.003	mg/L
Lead	2025-02-10 to 2025-11-03	<0.0001	mg/L
Microcystins	2025-06-03 to 2025-10-28	<0.15	ug/L
Sulphate	2025-01-14 to 2025-12-09	22.2 to 24.7	mg/L
Total Dissolved Solids	2025-02-10 to 2025-11-03	176 to 236	mg/L
Distribution			
Iron	2025-02-10 to 2025-11-03	<0.003 to 0.177	mg/L
o-Phosphate as PO4	2025-01-02 to 2025-12-30	1.34 to 2.07	mg/L
Temperature - Field	2025-01-02 to 2025-12-30	2.0 to 23.6	C
Turbidity - Field	2025-01-02 to 2025-12-30	0.05 to 1.96	NTU
Plumbing			
Copper	2025-03-10 to 2025-10-03	0.0010 to 0.0864	mg/L

Parameter	Samples Taken	Result Value Range	Unit of Measure
Temperature – Raw	8760	-0.52 to 23.92	C
pH – Treated	8760	7.09 to 7.53	pH
Orthophosphate – Treated	8760	1.19 to 2.92	mg/L
Orthophosphate – Treated	365	1.43 to 2.42	mg/L
Turbidity - Treated	8760	0.033 to 0.946	NTU

1.6 INORGANIC TESTING

TABLE 1-5: SUMMARY OF INORGANIC PARAMETERS REQUIRED BY REGULATION 170/03

Parameter	Sample Date(s)	Result Value Range	Unit of Measure
Treated			
Antimony	2025-05-26 to 2025-11-11	0.0001 to 0.0002	mg/L
Arsenic	2025-05-26 to 2025-11-11	0.0006	mg/L
Barium	2025-05-26 to 2025-11-11	0.0196 to 0.0248	mg/L
Boron	2025-05-26 to 2025-11-11	0.022 to 0.025	mg/L
Cadmium	2025-05-26 to 2025-11-11	<0.0001	mg/L
Chromium	2025-05-26 to 2025-11-11	<0.0001 to 0.0001	mg/L
Fluoride	2025-01-01 to 2025-12-31	0.59 to 0.75	mg/L
Mercury	2025-05-26 to 2025-11-11	<0.05	ug/L
Nitrate as N	2025-01-07 to 2025-12-30	0.13 to 0.59	mg/L
Nitrite as N	2025-01-07 to 2025-12-30	<0.01	mg/L

Parameter	Sample Date(s)	Result Value Range	Unit of Measure
Selenium	2025-05-26 to 2025-11-11	0.0002	mg/L
Sodium	2025-05-26 to 2025-11-11	15.0 to 18.0	mg/L
Uranium	2025-05-26 to 2025-11-11	0.207 to 0.212	ug/L

1.7 ORGANIC TESTING

TABLE 1-6: SUMMARY OF ORGANIC PARAMETERS REQUIRED BY REGULATION 170/03

Parameter	Sample Date(s)	Result Value Range	Unit of Measure
Treated			
1,1-Dichloroethylene	2025-05-26 to 2025-11-11	<0.2	ug/L
1,2-Dichlorobenzene	2025-05-26 to 2025-11-11	<0.2	ug/L
1,2-Dichloroethane	2025-05-26 to 2025-11-11	<0.2	ug/L
1,4-Dichlorobenzene	2025-05-26 to 2025-11-11	<0.2	ug/L
2,3,4,6-Tetrachlorophenol	2025-05-26	<0.20	ug/L
2,4,6-Trichlorophenol	2025-05-26	<0.25	ug/L
2,4-D	2025-05-26	<0.19	ug/L
2,4-Dichlorophenol	2025-05-26	<0.15	ug/L
Alachlor	2025-05-26	<0.02	ug/L
Atrazine + Desethyl-atrazine	2025-05-26	0.06	ug/L
Azinphos-methyl	2025-05-26	<0.05	ug/L

Parameter	Sample Date(s)	Result Value Range	Unit of Measure
Benzene	2025-05-26 to 2025-11-11	<0.2	ug/L
Benzo[a]pyrene	2025-05-26	<0.004	ug/L
Bromoxynil	2025-05-26	<0.33	ug/L
Carbaryl	2025-05-26	<0.05	ug/L
Carbofuran	2025-05-26	<0.01	ug/L
Carbon Tetrachloride	2025-05-26 to 2025-11-11	<0.2	ug/L
Chlorobenzene	2025-05-26 to 2025-11-11	<0.3	ug/L
Chlorpyrifos (Dursban)	2025-05-26	<0.02	ug/L
Diazinon	2025-05-26	<0.02	ug/L
Dicamba	2025-05-26	<0.20	ug/L
Dichloromethane	2025-05-26 to 2025-11-11	<0.5	ug/L
Diclofop-methyl	2025-05-26	<0.40	ug/L
Dimethoate	2025-05-26	<0.06	ug/L
Diquat	2025-05-26	<1	ug/L
Diuron	2025-05-26	<0.03	ug/L
Glyphosate	2025-05-26	<1	ug/L
Malathion	2025-05-26	<0.02	ug/L
MCPA	2025-05-26	<0.00012	mg/L
Metolachlor	2025-05-26	<0.01	ug/L
Metribuzin (Sencor)	2025-05-26	<0.02	ug/L
Paraquat	2025-05-26	<1	ug/L

Parameter	Sample Date(s)	Result Value Range	Unit of Measure
PCBs Total	2025-05-26	<0.04	ug/L
Pentachlorophenol	2025-05-26	<0.15	ug/L
Phorate	2025-05-26	<0.01	ug/L
Picloram	2025-05-26	<1	ug/L
Prometryne	2025-05-26	<0.03	ug/L
Simazine	2025-05-26	<0.01	ug/L
Terbufos	2025-05-26	<0.01	ug/L
Tetrachloroethylene	2025-05-26 to 2025-11-11	<0.2	ug/L
Triallate	2025-05-26	<0.01	ug/L
Trichloroethylene	2025-05-26 to 2025-11-11	<0.2	ug/L
Trifluralin	2025-05-26	<0.02	ug/L
Vinyl Chloride	2025-05-26 to 2025-11-11	<0.2	ug/L
Distribution			
Haloacetic Acids*	Running annual average for the last four quarters	6.1	ug/L
Total Trihalomethanes*	Running annual average for the last four quarters	25.4	ug/L
*The Maximum Acceptable Concentration for Trihalomethanes and Haloacetic Acids in the distribution system is based on a running average of the results from all sampling events in the past four quarters. This running average can be found in the result value range column.			

1.8 PARAMETERS EXCEEDING PRESCRIBED HALF-STANDARD

There were no Schedule 23 or 24 parameters that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards (O.Reg. 169/03).

2. HAMILTON DRINKING WATER SYSTEM, FIFTY ROAD SUBSYSTEM

2.1 DEFINITIONS

AWQI: Adverse Water Quality Incident

CFU: Colony Forming Unit

MPN: Most Probable Number

HPC: Heterotrophic Plate Count

mg/L: milligrams per litre

mL: millilitre

N/A: Not Applicable

ug/L: microgram per litre

P/A: Present/Absent

2.2 LEAD TESTING

Fifty Road DWSS is exempt from sampling for lead in plumbing as per Schedule 15.1-5. (10) of O. Reg. 170/03. Relief is in place from taking residential and non-residential plumbing samples. Lead samples from the distribution system are collected every three years under the reduced schedule.

TABLE 2-1: SUMMARY OF LEAD TESTING UNDER SCHEDULE 15.1 OF REGULATION 170/03

Parameter	Points Sampled	Samples Taken	Result Value Range	Unit of Measure
Distribution				
Alkalinity	2	2	85 to 87	mg/L
pH - Field	2	2	7.40 to 7.49	pH

2.3 MICROBIOLOGICAL TESTING

TABLE 2-2: MICROBIOLOGICAL TESTING UNDER SCHEDULE 10, 11, 12 AND 17, 18 OF REGULATION 170/03

Parameter	Sample Date(s)	Number of Samples	Result Value Range	Unit of Measure
Distribution				
Escherichia coli	2025-01-06 to 2025-12-29	104	ALL ABSENT	P/A/100mL
Heterotrophic Plate Count	2025-01-06 to 2025-12-29	102	0 to 1	CFU/1mL
Total Coliform	2025-01-06 to 2025-12-29	104	ALL ABSENT	P/A/100mL

2.4 OPERATIONAL TESTING

TABLE 2-3: OPERATIONAL TESTING UNDER SCHEDULE 7, 8 OR 9 OF REGULATION 170/03

Parameter	Samples Taken	Result Value Range	Unit of Measure
Free Chlorine - Distribution	156	0.71 to 1.66	mg/L

2.5 2.5 ORGANIC TESTING

TABLE 2-4: SUMMARY OF ORGANIC PARAMETERS REQUIRED BY REGULATION 170/03

Parameter	Sample Date(s)	Result Value Range	Unit of Measure
Distribution			
Haloacetic Acids*	Running annual average for the last four quarters	32.5	ug/L
Total Trihalomethanes*	Running annual average for the last four quarters	32.7	ug/L
*The Maximum Acceptable Concentration for Trihalomethanes and Haloacetic Acids in the distribution system is based on a running average of the results from all sampling events in the past four quarters. This running average can be found in the result value range column.			

2.6 PARAMETERS EXCEEDING PRESCRIBED HALF-STANDARD

There were no Schedule 23 or 24 parameters that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards (O.Reg. 169/03).

3. FREELTON DRINKING WATER SYSTEM

3.1 DEFINITIONS

AWQI: Adverse Water Quality Incident

CFU: Colony Forming Unit

MPN: Most Probable Number

HPC: Heterotrophic Plate Count

mg/L: milligrams per litre

mL: millilitre

N/A: Not Applicable

NTU: Nephelometric Turbidity Unit

ug/L: microgram per litre

P/A: Present/Absent

3.2 LEAD TESTING

Freelton DWS is exempt from sampling for lead in plumbing as per Schedule 15.1-5. (10) of O. Reg. 170/03. Relief is in place from taking residential and non-residential plumbing samples. Lead samples from the distribution system are collected every three years under the reduced schedule.

TABLE 3-1: SUMMARY OF LEAD TESTING UNDER SCHEDULE 15.1 OF REGULATION 170/03

Parameter	Points Sampled	Samples Taken	Result Value Range	Unit of Measure
Distribution				
Alkalinity	4	4	307 to 315	mg/L
pH - Field	4	4	7.29 to 7.36	pH

3.3 MICROBIOLOGICAL TESTING

TABLE 3-2: MICROBIOLOGICAL TESTING UNDER SCHEDULE 10, 11, 12 AND 17, 18 OF REGULATION 170/03

Parameter	Sample Date(s)	Number of Samples	Result Value Range	Unit of Measure
Freelton Well Raw FDF01				
Escherichia coli	2025-01-06 to 2025-12-29	51	0	MPN/100mL
Total Coliform	2025-01-06 to 2025-12-29	51	0 to 1	MPN/100mL
Freelton Well Raw FDF03				
Escherichia coli	2025-01-07 to 2025-12-30	52	0	MPN/100mL
Total Coliform	2025-01-07 to 2025-12-30	52	0	MPN/100mL
Freelton Well Treated FDF01				
Escherichia coli	2025-01-06 to 2025-12-29	51	ALL ABSENT	P/A/100mL
Heterotrophic Plate Count	2025-01-06 to 2025-12-29	51	0 to 1	CFU/1mL
Total Coliform	2025-01-06 to 2025-12-29	51	ALL ABSENT	P/A/100mL
Freelton Well Treated FDF03				
Escherichia coli	2025-01-07 to 2025-12-30	52	ALL ABSENT	P/A/100mL
Heterotrophic Plate Count	2025-01-07 to 2025-12-30	52	0 to 1	CFU/1mL
Total Coliform	2025-01-07 to 2025-12-30	52	ALL ABSENT	P/A/100mL
Distribution				
Escherichia coli	2025-01-06 to 2025-12-30	156	ALL ABSENT	P/A/100mL
Heterotrophic Plate Count	2025-01-06 to 2025-12-30	208	0 to 3	CFU/1mL
Total Coliform	2025-01-06 to 2025-12-30	156	ALL ABSENT	P/A/100mL

3.4 OPERATIONAL TESTING

TABLE 3-3: OPERATIONAL TESTING UNDER SCHEDULE 7, 8 OR 9 OF REGULATION 170/03

NOTE: If results are obtained from continuous monitors, then 8760 is reported as the number of samples.

Parameter	Samples Taken	Result Value Range	Unit of Measure
Turbidity - Raw FDF01	49	0.05 to 0.32	NTU
Turbidity - Raw FDF03	52	0.07 to 0.70	NTU
Free Chlorine - Treated FDF01	8760	0.86 to 2.51	mg/L
Free Chlorine - Treated FDF03	8760	1.17 to 3.62	mg/L
Free Chlorine - Distribution	365	1.31 to 2.17	mg/L

3.5 INORGANIC TESTING

TABLE 3-4: SUMMARY OF INORGANIC PARAMETERS REQUIRED BY REGULATION 170/03

Parameter	Sample Date(s)	Result Value Range	Unit of Measure
Freelton Well Treated FDF01			
Antimony	2025-05-27 to 2025-11-26	0.0001	mg/L
Arsenic	2025-05-27 to 2025-11-26	0.0001 to 0.0002	mg/L
Barium	2025-05-27 to 2025-11-26	0.0647 to 0.0685	mg/L
Boron	2025-05-27 to 2025-11-26	0.022	mg/L
Cadmium	2025-05-27 to 2025-11-26	<0.0001	mg/L
Chromium	2025-05-27 to 2025-11-26	<0.0001	mg/L

Parameter	Sample Date(s)	Result Value Range	Unit of Measure
Fluoride	2025-05-27 to 2025-11-26	0.09 to 0.11	mg/L
Mercury	2025-05-27 to 2025-11-26	<0.05	ug/L
Nitrate as N	2025-01-28 to 2025-11-26	1.88 to 2.22	mg/L
Nitrite as N	2025-01-28 to 2025-11-26	<0.01	mg/L
Selenium	2025-05-27 to 2025-11-26	0.0003	mg/L
Sodium	2025-05-27 to 2025-11-26	53.4 to 54.7	mg/L
Uranium	2025-05-27 to 2025-11-26	0.302 to 0.306	ug/L
Freelton Well Treated FDF03			
Antimony	2025-05-27 to 2025-11-10	0.0001 to 0.0002	mg/L
Arsenic	2025-05-27 to 2025-11-10	0.0003 to 0.0027	mg/L
Barium	2025-05-27 to 2025-11-10	0.0693 to 0.0788	mg/L
Boron	2025-05-27 to 2025-11-10	0.019 to 0.021	mg/L
Cadmium	2025-05-27 to 2025-11-10	<0.0001	mg/L
Chromium	2025-05-27 to 2025-11-10	<0.0001	mg/L
Fluoride	2025-05-27 to 2025-11-10	0.10 to 0.17	mg/L
Mercury	2025-05-27 to 2025-11-10	<0.05	ug/L
Nitrate as N	2025-01-28 to 2025-11-10	0.05 to 1.87	mg/L
Nitrite as N	2025-01-28 to 2025-11-10	<0.01	mg/L
Selenium	2025-05-27 to 2025-11-10	<0.0001 to 0.0003	mg/L
Sodium	2025-05-27 to 2025-11-10	50.0 to 74.3	mg/L
Uranium	2025-05-27 to 2025-11-10	0.294 to 0.340	ug/L

3.6 ORGANIC TESTING

TABLE 3-5: SUMMARY OF ORGANIC PARAMETERS REQUIRED BY REGULATION 170/03

Parameter	Sample Date(s)	Result Value Range	Unit of Measure
Freelton Well Treated FDF01			
1,1-Dichloroethylene	2025-05-27 to 2025-11-26	<0.2	ug/L
1,2-Dichlorobenzene	2025-05-27 to 2025-11-26	<0.2	ug/L
1,2-Dichloroethane	2025-05-27 to 2025-11-26	<0.2	ug/L
1,4-Dichlorobenzene	2025-05-27 to 2025-11-26	<0.2	ug/L
2,3,4,6-Tetrachlorophenol	2025-05-27	<0.20	ug/L
2,4,6-Trichlorophenol	2025-05-27	<0.25	ug/L
2,4-D	2025-05-27	<0.19	ug/L
2,4-Dichlorophenol	2025-05-27	<0.15	ug/L
Alachlor	2025-05-27	<0.02	ug/L
Atrazine + Desethyl-atrazine	2025-05-27	<0.01	ug/L
Azinphos-methyl	2025-05-27	<0.05	ug/L
Benzene	2025-05-27 to 2025-11-26	<0.2	ug/L
Benzo[a]pyrene	2025-05-27	<0.004	ug/L
Bromoxynil	2025-05-27	<0.33	ug/L
Carbaryl	2025-05-27	<0.05	ug/L
Carbofuran	2025-05-27	<0.01	ug/L
Carbon Tetrachloride	2025-05-27 to 2025-11-26	<0.2	ug/L

Parameter	Sample Date(s)	Result Value Range	Unit of Measure
Chlorobenzene	2025-05-27 to 2025-11-26	<0.3	ug/L
Chlorpyrifos (Dursban)	2025-05-27	<0.02	ug/L
Diazinon	2025-05-27	<0.02	ug/L
Dicamba	2025-05-27	<0.20	ug/L
Dichloromethane	2025-05-27 to 2025-11-26	<0.5	ug/L
Diclofop-methyl	2025-05-27	<0.40	ug/L
Dimethoate	2025-05-27	<0.06	ug/L
Diquat	2025-05-27	<1	ug/L
Diuron	2025-05-27	<0.03	ug/L
Glyphosate	2025-05-27	<1	ug/L
Malathion	2025-05-27	<0.02	ug/L
MCPA	2025-05-27	<0.00012	mg/L
Metolachlor	2025-05-27	<0.01	ug/L
Metribuzin (Sencor)	2025-05-27	<0.02	ug/L
Paraquat	2025-05-27	<1	ug/L
PCBs Total	2025-05-27	<0.04	ug/L
Pentachlorophenol	2025-05-27	<0.15	ug/L
Phorate	2025-05-27	<0.01	ug/L
Picloram	2025-05-27	<1	ug/L
Prometryne	2025-05-27	<0.03	ug/L
Simazine	2025-05-27	<0.01	ug/L

Parameter	Sample Date(s)	Result Value Range	Unit of Measure
Terbufos	2025-05-27	<0.01	ug/L
Tetrachloroethylene	2025-05-27 to 2025-11-26	<0.2	ug/L
Triallate	2025-05-27	<0.01	ug/L
Trichloroethylene	2025-05-27 to 2025-11-26	<0.2	ug/L
Trifluralin	2025-05-27	<0.02	ug/L
Vinyl Chloride	2025-05-27 to 2025-11-26	<0.2	ug/L
Freelton Well Treated FDF03			
1,1-Dichloroethylene	2025-05-27 to 2025-11-10	<0.2	ug/L
1,2-Dichlorobenzene	2025-05-27 to 2025-11-10	<0.2	ug/L
1,2-Dichloroethane	2025-05-27 to 2025-11-10	<0.2	ug/L
1,4-Dichlorobenzene	2025-05-27 to 2025-11-10	<0.2	ug/L
2,3,4,6-Tetrachlorophenol	2025-05-27 to 2025-05-30	<0.20	ug/L
2,4,6-Trichlorophenol	2025-05-27 to 2025-05-30	<0.25	ug/L
2,4-D	2025-05-27 to 2025-05-30	<0.19	ug/L
2,4-Dichlorophenol	2025-05-27 to 2025-05-30	<0.15	ug/L
Alachlor	2025-05-27 to 2025-05-30	<0.02	ug/L
Atrazine + Desethyl-atrazine	2025-05-27 to 2025-05-30	<0.01	ug/L
Azinphos-methyl	2025-05-27 to 2025-05-30	<0.05	ug/L
Benzene	2025-05-27 to 2025-11-10	<0.2	ug/L
Benzo[a]pyrene	2025-05-27 to 2025-05-30	<0.004	ug/L
Bromoxynil	2025-05-27 to 2025-05-30	<0.33	ug/L

Parameter	Sample Date(s)	Result Value Range	Unit of Measure
Carbaryl	2025-05-27 to 2025-05-30	<0.05	ug/L
Carbofuran	2025-05-27 to 2025-05-30	<0.01	ug/L
Carbon Tetrachloride	2025-05-27 to 2025-11-10	<0.2	ug/L
Chlorobenzene	2025-05-27 to 2025-11-10	<0.3	ug/L
Chlorpyrifos (Dursban)	2025-05-27 to 2025-05-30	<0.02	ug/L
Diazinon	2025-05-27 to 2025-05-30	<0.02	ug/L
Dicamba	2025-05-27 to 2025-05-30	<0.20	ug/L
Dichloromethane	2025-05-27 to 2025-11-10	<0.5	ug/L
Diclofop-methyl	2025-05-27 to 2025-05-30	<0.40	ug/L
Dimethoate	2025-05-27 to 2025-05-30	<0.06	ug/L
Diquat	2025-05-27 to 2025-05-30	<1	ug/L
Diuron	2025-05-27 to 2025-05-30	<0.03	ug/L
Glyphosate	2025-05-27 to 2025-05-30	<1	ug/L
Malathion	2025-05-27 to 2025-05-30	<0.02	ug/L
MCPA	2025-05-27 to 2025-05-30	<0.00012	mg/L
Metolachlor	2025-05-27 to 2025-05-30	<0.01	ug/L
Metribuzin (Sencor)	2025-05-27 to 2025-05-30	<0.02	ug/L
Paraquat	2025-05-27 to 2025-05-30	<1	ug/L
PCBs Total	2025-05-27 to 2025-05-30	<0.04	ug/L
Pentachlorophenol	2025-05-27 to 2025-05-30	<0.15	ug/L
Phorate	2025-05-27 to 2025-05-30	<0.01	ug/L

Parameter	Sample Date(s)	Result Value Range	Unit of Measure
Picloram	2025-05-27 to 2025-05-30	<1	ug/L
Prometryne	2025-05-27 to 2025-05-30	<0.03	ug/L
Simazine	2025-05-27 to 2025-05-30	<0.01	ug/L
Terbufos	2025-05-27 to 2025-05-30	<0.01	ug/L
Tetrachloroethylene	2025-05-27 to 2025-11-10	<0.2	ug/L
Triallate	2025-05-27 to 2025-05-30	<0.01	ug/L
Trichloroethylene	2025-05-27 to 2025-11-10	<0.2	ug/L
Trifluralin	2025-05-27 to 2025-05-30	<0.02	ug/L
Vinyl Chloride	2025-05-27 to 2025-11-10	<0.2	ug/L
Distribution			
Haloacetic Acids*	Running annual average for the last four quarters	<5.3	ug/L
Total Trihalomethanes*	Running annual average for the last four quarters	15.0	ug/L
*The Maximum Acceptable Concentration for Trihalomethanes and Haloacetic Acids in the distribution system is based on a running average of the results from all sampling events in the past four quarters. This running average can be found in the result value range column.			

3.7 PARAMETERS EXCEEDING PRESCRIBED HALF-STANDARD

There were no Schedule 23 or 24 parameters that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards (O.Reg. 169/03).

4. GREENSVILLE DRINKING WATER SYSTEM

4.1 DEFINITIONS

AWQI: Adverse Water Quality Incident

CFU: Colony Forming Unit

MPN: Most Probable Number

HPC: Heterotrophic Plate Count

mg/L: milligrams per litre

mL: millilitre

N/A: Not Applicable

NTU: Nephelometric Turbidity Unit

ug/L: microgram per litre

P/A: Present/Absent

CU: Colour Units

4.2 LEAD TESTING

Greensville DWS is exempt from sampling for lead in plumbing as per Schedule 15.1-5. (10) of O. Reg. 170/03. Relief is in place from taking residential and non-residential plumbing samples. Lead samples from the distribution system are collected every three years under the reduced schedule.

TABLE 4-1: SUMMARY OF LEAD TESTING UNDER SCHEDULE 15.1 OF REGULATION 170/03

Parameter	Points Sampled	Samples Taken	Result Value Range	Unit of Measure
Distribution				
Alkalinity	2	2	358 to 372	mg/L
pH - Field	2	2	7.16 to 7.25	pH

4.3 MICROBIOLOGICAL TESTING

TABLE 4-2: MICROBIOLOGICAL TESTING UNDER SCHEDULE 10, 11, 12 AND 17, 18 OF REGULATION 170/03

Parameter	Sample Date(s)	Number of Samples	Result Value Range	Unit of Measure
Greensville Well Raw FDG01				

Parameter	Sample Date(s)	Number of Samples	Result Value Range	Unit of Measure
Escherichia coli	2025-01-01 to 2025-12-31	53	0	MPN/100mL
Total Coliform	2025-01-01 to 2025-12-31	53	0	MPN/100mL
Greensville Well Treated FDG01				
Escherichia coli	2025-01-01 to 2025-12-31	53	ALL ABSENT	P/A/100mL
Heterotrophic Plate Count	2025-01-01 to 2025-12-31	53	0 to 1	CFU/1mL
Total Coliform	2025-01-01 to 2025-12-31	53	ALL ABSENT	P/A/100mL
Distribution				
Escherichia coli	2025-01-01 to 2025-12-31	53	ALL ABSENT	P/A/100mL
Heterotrophic Plate Count	2025-01-01 to 2025-12-31	53	0 to 2	CFU/1mL
Total Coliform	2025-01-01 to 2025-12-31	53	ALL ABSENT	P/A/100mL

4.4 OPERATIONAL TESTING

TABLE 4-3: TESTING UNDER SCHEDULE 7, 8 OR 9 OF REGULATION

Parameter	Samples Taken	Result Value Range	Unit of Measure
Turbidity - Treated FDG01	8760	0.04 to 0.87	NTU
Free Chlorine - Treated FDG01	8760	0.90 to 4.05	mg/L
Free Chlorine - Distribution	365	1.04 to 2.70	mg/L

4.5 INORGANIC TESTING

TABLE 4-4: SUMMARY OF INORGANIC PARAMETERS REQUIRED BY REGULATION 170/03

Parameter	Sample Date(s)	Result Value Range	Unit of Measure
Greensville Well Treated FDG01			
Antimony	2025-05-28 to 2025-11-11	<0.0001	mg/L
Arsenic	2025-05-28 to 2025-11-11	<0.0001	mg/L
Barium	2025-05-28 to 2025-11-11	0.131 to 0.154	mg/L
Boron	2025-05-28 to 2025-11-11	0.037 to 0.042	mg/L
Cadmium	2025-05-28 to 2025-11-11	<0.0001	mg/L
Chromium	2025-05-28 to 2025-11-11	0.0002	mg/L
Fluoride	2025-05-28 to 2025-11-11	0.12 to 0.13	mg/L
Mercury	2025-05-28 to 2025-11-11	<0.05	ug/L
Nitrate as N	2025-01-08 to 2025-12-03	5.03 to 6.31	mg/L
Nitrite as N	2025-01-08 to 2025-12-03	<0.05	mg/L
Selenium	2025-05-28 to 2025-11-11	0.0004	mg/L
Sodium	2025-05-28 to 2025-11-11	117 to 146	mg/L
Uranium	2025-05-28 to 2025-11-11	0.638 to 0.711	ug/L

4.6 ORGANIC TESTING

TABLE 4-5: SUMMARY OF ORGANIC PARAMETERS REQUIRED BY REGULATION 170/03

Parameter	Sample Date(s)	Result Value Range	Unit of Measure
Greensville Well Treated FDG01			

Parameter	Sample Date(s)	Result Value Range	Unit of Measure
1,1-Dichloroethylene	2025-05-28 to 2025-11-11	<0.2	ug/L
1,2-Dichlorobenzene	2025-05-28 to 2025-11-11	<0.2	ug/L
1,2-Dichloroethane	2025-05-28 to 2025-11-11	<0.2	ug/L
1,4-Dichlorobenzene	2025-05-28 to 2025-11-11	<0.2	ug/L
2,3,4,6-Tetrachlorophenol	2025-05-28	<0.20	ug/L
2,4,6-Trichlorophenol	2025-05-28	<0.25	ug/L
2,4-D	2025-05-28	<0.19	ug/L
2,4-Dichlorophenol	2025-05-28	<0.15	ug/L
Alachlor	2025-05-28	<0.02	ug/L
Atrazine + Desethyl-atrazine	2025-05-28	<0.01	ug/L
Azinphos-methyl	2025-05-28	<0.05	ug/L
Benzene	2025-05-28 to 2025-11-11	<0.2	ug/L
Benzo[a]pyrene	2025-05-28	<0.004	ug/L
Bromoxynil	2025-05-28	<0.33	ug/L
Carbaryl	2025-05-28	<0.05	ug/L
Carbofuran	2025-05-28	<0.01	ug/L
Carbon Tetrachloride	2025-05-28 to 2025-11-11	<0.2	ug/L
Chlorobenzene	2025-05-28 to 2025-11-11	<0.3	ug/L
Chlorpyrifos (Dursban)	2025-05-28	<0.02	ug/L
Diazinon	2025-05-28	<0.02	ug/L

Parameter	Sample Date(s)	Result Value Range	Unit of Measure
Dicamba	2025-05-28	<0.20	ug/L
Dichloromethane	2025-05-28 to 2025-11-11	<0.5	ug/L
Diclofop-methyl	2025-05-28	<0.40	ug/L
Dimethoate	2025-05-28	<0.06	ug/L
Diquat	2025-05-28	<1	ug/L
Diuron	2025-05-28	<0.03	ug/L
Glyphosate	2025-05-28	<1	ug/L
Malathion	2025-05-28	<0.02	ug/L
MCPA	2025-05-28	<0.00012	mg/L
Metolachlor	2025-05-28	<0.01	ug/L
Metribuzin (Sencor)	2025-05-28	<0.02	ug/L
Paraquat	2025-05-28	<1	ug/L
PCBs Total	2025-05-28	<0.04	ug/L
Pentachlorophenol	2025-05-28	<0.15	ug/L
Phorate	2025-05-28	<0.01	ug/L
Picloram	2025-05-28	<1	ug/L
Prometryne	2025-05-28	<0.03	ug/L
Simazine	2025-05-28	<0.01	ug/L
Terbufos	2025-05-28	<0.01	ug/L
Tetrachloroethylene	2025-05-28 to 2025-11-11	<0.2	ug/L
Triallate	2025-05-28	<0.01	ug/L

Parameter	Sample Date(s)	Result Value Range	Unit of Measure
Trichloroethylene	2025-05-28 to 2025-11-11	<0.2	ug/L
Trifluralin	2025-05-28	<0.02	ug/L
Vinyl Chloride	2025-05-28 to 2025-11-11	<0.2	ug/L
Distribution			
Haloacetic Acids*	Running annual average for the last four quarters	<5.3	ug/L
Total Trihalomethanes*	Running annual average for the last four quarters	17.0	ug/L
*The Maximum Acceptable Concentration for Trihalomethanes and Haloacetic Acids in the distribution system is based on a running average of the results from all sampling events in the past four quarters. This running average can be found in the result value range column.			

4.7 PARAMETERS EXCEEDING PRESCRIBED HALF-STANDARD

There were no Schedule 23 or 24 parameters that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards (O.Reg. 169/03).

5. CARLISLE DRINKING WATER SYSTEM

5.1 DEFINITIONS

AWQI: Adverse Water Quality Incident

CFU: Colony Forming Unit

MPN: Most Probable Number

HPC: Heterotrophic Plate Count

mg/L: milligrams per litre

mL: millilitre

N/A: Not Applicable

NTU: Nephelometric Turbidity Unit

ug/L: microgram per litre

P/A: Present/Absent

5.2 LEAD TESTING

Carlisle DWS is exempt from sampling for lead in plumbing as per Schedule 15.1-5. (10) of O. Reg. 170/03. Relief is in place from taking residential and non-residential plumbing samples. Lead samples from the distribution system are collected every three years under the reduced schedule.

TABLE 5-1: SUMMARY OF LEAD TESTING UNDER SCHEDULE 15.1 OF REGULATION 170/03

Parameter	Points Sampled	Samples Taken	Result Value Range	Unit of Measure
Distribution				
Alkalinity	4	4	321 to 328	mg/L
pH - Field	4	4	7.21 to 7.32	pH

5.3 MICROBIOLOGICAL TESTING

TABLE 5-2: MICROBIOLOGICAL TESTING UNDER SCHEDULE 10, 11, 12 AND 17, 18 OF REGULATION 170/03

Parameter	Sample Date(s)	Number of Samples	Result Value Range	Unit of Measure
Carlisle Well Raw FDC01				
Escherichia coli	2025-01-07 to 2025-12-30	52	0	MPN/100mL
Total Coliform	2025-01-07 to 2025-12-30	52	0 to 1	MPN/100mL
Carlisle Well Raw FDC02				
Escherichia coli	2025-01-07 to 2025-12-30	11	0	MPN/100mL
Total Coliform	2025-01-07 to 2025-12-30	11	0	MPN/100mL
Carlisle Well Raw FDC03R				

Parameter	Sample Date(s)	Number of Samples	Result Value Range	Unit of Measure
Escherichia coli	2025-01-06 to 2025-12-29	52	0	MPN/100mL
Total Coliform	2025-01-06 to 2025-12-29	52	0	MPN/100mL
Carlisle Well Raw FDC05				
Escherichia coli	2025-01-06 to 2025-12-29	52	0	MPN/100mL
Total Coliform	2025-01-06 to 2025-12-29	52	0	MPN/100mL
Carlisle Well Treated FDC01				
Escherichia coli	2025-01-07 to 2025-12-30	52	ALL ABSENT	P/A/100mL
Heterotrophic Plate Count	2025-01-07 to 2025-12-30	52	0 to 5	CFU/1mL
Total Coliform	2025-01-07 to 2025-12-30	52	ALL ABSENT	P/A/100mL
Carlisle Well Treated FDC02				
Escherichia coli	2025-01-07 to 2025-12-30	11	ALL ABSENT	P/A/100mL
Heterotrophic Plate Count	2025-01-07 to 2025-12-30	11	0	CFU/1mL
Total Coliform	2025-01-07 to 2025-12-30	11	ALL ABSENT	P/A/100mL
Carlisle Well Treated FDC03R				
Escherichia coli	2025-01-06 to 2025-12-29	52	ALL ABSENT	P/A/100mL
Heterotrophic Plate Count	2025-01-06 to 2025-12-29	52	0 to 1	CFU/1mL
Total Coliform	2025-01-06 to 2025-12-29	52	ALL ABSENT	P/A/100mL
Carlisle Well Treated FDC05				
Escherichia coli	2025-01-06 to 2025-12-29	52	ALL ABSENT	P/A/100mL

Parameter	Sample Date(s)	Number of Samples	Result Value Range	Unit of Measure
Heterotrophic Plate Count	2025-01-06 to 2025-12-29	52	0 to 5	CFU/1mL
Total Coliform	2025-01-06 to 2025-12-29	52	ALL ABSENT	P/A/100mL
Distribution				
Escherichia coli	2025-07-30	3	0	MPN/100ml
Escherichia coli	2025-01-06 to 2025-12-30	156	ALL ABSENT	P/A/100mL
Heterotrophic Plate Count	2025-01-06 to 2025-12-30	208	0 to 3	CFU/1mL
Total Coliform	2025-07-30	3	0	MPN/100ml
Total Coliform	2025-01-06 to 2025-12-30	156	1 DETECTION	P/A/100mL

5.4 OPERATIONAL TESTING

TABLE 5-3: OPERATIONAL TESTING UNDER SCHEDULE 7, 8 OR 9 OF REGULATION 170/03

NOTE: If results are obtained from continuous monitors, then 8760 is reported as the number of samples.

Parameter	Samples Taken	Result Value Range	Unit of Measure
Turbidity - Raw FDC01	50	0.06	NTU
Turbidity - Raw FDC02	11	0.08	NTU
Turbidity - Treated FDC03R	8760	0.06	NTU
Turbidity - Treated FDC05	8760	0.04	NTU
Free Chlorine - Treated FDC01 and FDC02	8760	1.13	mg/L
Free Chlorine - Treated FDC03R and FDC05	8760	1.31	mg/L

Parameter	Samples Taken	Result Value Range	Unit of Measure
Free Chlorine - Distribution	365	1.17	mg/L

5.5 INORGANIC TESTING

TABLE 5-4: SUMMARY OF INORGANIC PARAMETERS REQUIRED BY REGULATION 170/03

Parameter	Sample Date(s)	Result Value Range	Unit of Measure
Carlisle Well Treated FDC01			
Antimony	2025-05-27 to 2025-11-10	<0.0001	mg/L
Arsenic	2025-05-27 to 2025-11-10	0.0002 to 0.0007	mg/L
Barium	2025-05-27 to 2025-11-10	0.0786 to 0.0926	mg/L
Boron	2025-05-27 to 2025-11-10	0.022 to 0.029	mg/L
Cadmium	2025-05-27 to 2025-11-10	<0.0001	mg/L
Chromium	2025-05-27 to 2025-11-10	0.0001 to 0.0002	mg/L
Fluoride	2025-05-27 to 2025-11-10	0.08 to 0.09	mg/L
Mercury	2025-05-27 to 2025-11-10	<0.05	ug/L
Nitrate as N	2025-01-28 to 2025-11-10	0.16 to 1.28	mg/L
Nitrite as N	2025-01-28 to 2025-11-10	<0.01 to 0.006	mg/L
Selenium	2025-05-27 to 2025-11-10	<0.0001 to 0.0001	mg/L
Sodium	2025-05-27 to 2025-11-10	27.1 to 52.6	mg/L
Uranium	2025-05-27 to 2025-11-10	0.434 to 0.469	ug/L
Carlisle Well Treated FDC02			
Antimony	2025-11-26	<0.0001	mg/L

Parameter	Sample Date(s)	Result Value Range	Unit of Measure
Arsenic	2025-11-26	0.0001	mg/L
Barium	2025-11-26	0.0868	mg/L
Boron	2025-11-26	0.018	mg/L
Cadmium	2025-11-26	<0.0001	mg/L
Chromium	2025-11-26	0.0001	mg/L
Fluoride	2025-11-26	0.10	mg/L
Mercury	2025-11-26	<0.05	ug/L
Nitrate as N	2025-11-26	1.21	mg/L
Nitrite as N	2025-11-26	<0.005	mg/L
Selenium	2025-11-26	0.0002	mg/L
Sodium	2025-11-26	18.9	mg/L
Uranium	2025-11-26	0.484	ug/L
Carlisle Well Treated FDC03R			
Antimony	2025-05-28 to 2025-11-10	0.0001 to 0.0002	mg/L
Arsenic	2025-05-28 to 2025-11-10	0.0003	mg/L
Barium	2025-05-28 to 2025-11-10	0.0775 to 0.0828	mg/L
Boron	2025-05-28 to 2025-11-10	0.027 to 0.028	mg/L
Cadmium	2025-05-28 to 2025-11-10	<0.0001	mg/L
Chromium	2025-05-28 to 2025-11-10	<0.0001	mg/L
Fluoride	2025-05-28 to 2025-11-10	0.07 to 0.08	mg/L
Mercury	2025-05-28 to 2025-11-10	<0.05	ug/L

Parameter	Sample Date(s)	Result Value Range	Unit of Measure
Nitrate as N	2025-01-31 to 2025-11-10	0.15 to 0.44	mg/L
Nitrite as N	2025-01-31 to 2025-11-10	<0.01	mg/L
Selenium	2025-05-28 to 2025-11-10	<0.0001 to 0.0002	mg/L
Sodium	2025-05-28 to 2025-11-10	50.6 to 54.5	mg/L
Uranium	2025-05-28 to 2025-11-10	0.624 to 0.642	ug/L
Carlisle Well Treated FDC05			
Antimony	2025-05-28 to 2025-11-10	<0.0001 to 0.0001	mg/L
Arsenic	2025-05-28 to 2025-11-10	0.0005	mg/L
Barium	2025-05-28 to 2025-11-10	0.0744 to 0.0802	mg/L
Boron	2025-05-28 to 2025-11-10	0.026 to 0.027	mg/L
Cadmium	2025-05-28 to 2025-11-10	<0.0001	mg/L
Chromium	2025-05-28 to 2025-11-10	<0.0001	mg/L
Fluoride	2025-05-28 to 2025-11-10	0.08	mg/L
Mercury	2025-05-28 to 2025-11-10	<0.05	ug/L
Nitrate as N	2025-01-28 to 2025-11-10	<0.1 to 0.17	mg/L
Nitrite as N	2025-01-28 to 2025-11-10	<0.01	mg/L
Selenium	2025-05-28 to 2025-11-10	<0.0001	mg/L
Sodium	2025-05-28 to 2025-11-10	51.4 to 52.4	mg/L
Uranium	2025-05-28 to 2025-11-10	0.395 to 0.474	ug/L

5.6 INORGANIC TESTING

TABLE 5-5: SUMMARY OF ORGANIC PARAMETERS REQUIRED BY REGULATION 170/03

Parameter	Sample Date(s)	Result Value Range	Unit of Measure
Carlisle Well Treated FDC01			
1,1-Dichloroethylene	2025-05-27 to 2025-11-10	<0.2	ug/L
1,2-Dichlorobenzene	2025-05-27 to 2025-11-10	<0.2	ug/L
1,2-Dichloroethane	2025-05-27 to 2025-11-10	<0.2	ug/L
1,4-Dichlorobenzene	2025-05-27 to 2025-11-10	<0.2	ug/L
2,3,4,6-Tetrachlorophenol	2025-05-27 to 2025-06-03	<0.20	ug/L
2,4,6-Trichlorophenol	2025-05-27 to 2025-06-03	<0.25	ug/L
2,4-D	2025-05-27 to 2025-06-03	<0.19	ug/L
2,4-Dichlorophenol	2025-05-27 to 2025-06-03	<0.15	ug/L
Alachlor	2025-05-27 to 2025-06-03	<0.02	ug/L
Atrazine + Desethyl-atrazine	2025-05-27 to 2025-06-03	<0.01	ug/L
Azinphos-methyl	2025-05-27 to 2025-06-03	<0.05	ug/L
Benzene	2025-05-27 to 2025-11-10	<0.2	ug/L
Benzo[a]pyrene	2025-05-27 to 2025-06-03	<0.004	ug/L
Bromoxynil	2025-05-27 to 2025-06-03	<0.33	ug/L
Carbaryl	2025-05-27 to 2025-06-03	<0.05	ug/L
Carbofuran	2025-05-27 to 2025-06-03	<0.01	ug/L
Carbon Tetrachloride	2025-05-27 to 2025-11-10	<0.2	ug/L

Parameter	Sample Date(s)	Result Value Range	Unit of Measure
Chlorobenzene	2025-05-27 to 2025-11-10	<0.3	ug/L
Chlorpyrifos (Dursban)	2025-05-27 to 2025-06-03	<0.02	ug/L
Diazinon	2025-05-27 to 2025-06-03	<0.02	ug/L
Dicamba	2025-05-27 to 2025-06-03	<0.20	ug/L
Dichloromethane	2025-05-27 to 2025-11-10	<0.5	ug/L
Diclofop-methyl	2025-05-27 to 2025-06-03	<0.40	ug/L
Dimethoate	2025-05-27 to 2025-06-03	<0.06	ug/L
Diquat	2025-05-27 to 2025-06-03	<1	ug/L
Diuron	2025-05-27 to 2025-06-03	<0.03	ug/L
Glyphosate	2025-05-27 to 2025-06-03	<1	ug/L
Malathion	2025-05-27 to 2025-06-03	<0.02	ug/L
MCPA	2025-05-27 to 2025-06-03	<0.00012	mg/L
Metolachlor	2025-05-27 to 2025-06-03	<0.01	ug/L
Metribuzin (Sencor)	2025-05-27 to 2025-06-03	<0.02	ug/L
Paraquat	2025-05-27 to 2025-06-03	<1	ug/L
PCBs Total	2025-05-27 to 2025-06-03	<0.04	ug/L
Pentachlorophenol	2025-05-27 to 2025-06-03	<0.15	ug/L
Phorate	2025-05-27 to 2025-06-03	<0.01	ug/L
Picloram	2025-05-27 to 2025-06-03	<1	ug/L
Prometryne	2025-05-27 to 2025-06-03	<0.03	ug/L
Simazine	2025-05-27 to 2025-06-03	<0.01	ug/L

Parameter	Sample Date(s)	Result Value Range	Unit of Measure
Terbufos	2025-05-27 to 2025-06-03	<0.01	ug/L
Tetrachloroethylene	2025-05-27 to 2025-11-10	<0.2	ug/L
Triallate	2025-05-27 to 2025-06-03	<0.01	ug/L
Trichloroethylene	2025-05-27 to 2025-11-10	<0.2	ug/L
Trifluralin	2025-05-27 to 2025-06-03	<0.02	ug/L
Vinyl Chloride	2025-05-27 to 2025-11-10	<0.2	ug/L
Carlisle Well Treated FDC02			
1,1-Dichloroethylene	2025-11-26	<0.2	ug/L
1,2-Dichlorobenzene	2025-11-26	<0.2	ug/L
1,2-Dichloroethane	2025-11-26	<0.2	ug/L
1,4-Dichlorobenzene	2025-11-26	<0.2	ug/L
2,3,4,6-Tetrachlorophenol	2025-11-26	<0.20	ug/L
2,4,6-Trichlorophenol	2025-11-26	<0.25	ug/L
2,4-D	2025-11-26	<0.19	ug/L
2,4-Dichlorophenol	2025-11-26	<0.15	ug/L
Alachlor	2025-11-26	<0.02	ug/L
Atrazine + Desethyl-atrazine	2025-11-26	<0.01	ug/L
Azinphos-methyl	2025-11-26	<0.05	ug/L
Benzene	2025-11-26	<0.2	ug/L
Benzo[a]pyrene	2025-11-26	<0.004	ug/L
Bromoxynil	2025-11-26	<0.33	ug/L

Parameter	Sample Date(s)	Result Value Range	Unit of Measure
Carbaryl	2025-11-26	<0.05	ug/L
Carbofuran	2025-11-26	<0.01	ug/L
Carbon Tetrachloride	2025-11-26	<0.2	ug/L
Chlorobenzene	2025-11-26	<0.3	ug/L
Chlorpyrifos (Dursban)	2025-11-26	<0.02	ug/L
Diazinon	2025-11-26	<0.02	ug/L
Dicamba	2025-11-26	<0.20	ug/L
Dichloromethane	2025-11-26	<0.5	ug/L
Diclofop-methyl	2025-11-26	<0.40	ug/L
Dimethoate	2025-11-26	<0.06	ug/L
Diquat	2025-11-26	<1	ug/L
Diuron	2025-11-26	<0.03	ug/L
Glyphosate	2025-11-26	<1	ug/L
Malathion	2025-11-26	<0.02	ug/L
MCPA	2025-11-26	<0.00012	mg/L
Metolachlor	2025-11-26	<0.01	ug/L
Metribuzin (Sencor)	2025-11-26	<0.02	ug/L
Paraquat	2025-11-26	<1	ug/L
PCBs Total	2025-11-26	<0.04	ug/L
Pentachlorophenol	2025-11-26	<0.15	ug/L
Phorate	2025-11-26	<0.01	ug/L

Parameter	Sample Date(s)	Result Value Range	Unit of Measure
Picloram	2025-11-26	<1	ug/L
Prometryne	2025-11-26	<0.03	ug/L
Simazine	2025-11-26	<0.01	ug/L
Terbufos	2025-11-26	<0.01	ug/L
Tetrachloroethylene	2025-11-26	<0.2	ug/L
Triallate	2025-11-26	<0.01	ug/L
Trichloroethylene	2025-11-26	<0.2	ug/L
Trifluralin	2025-11-26	<0.02	ug/L
Vinyl Chloride	2025-11-26	<0.2	ug/L
Carlisle Well Treated FDC03R			
1,1-Dichloroethylene	2025-05-28 to 2025-11-10	<0.2	ug/L
1,2-Dichlorobenzene	2025-05-28 to 2025-11-10	<0.2	ug/L
1,2-Dichloroethane	2025-05-28 to 2025-11-10	<0.2	ug/L
1,4-Dichlorobenzene	2025-05-28 to 2025-11-10	<0.2	ug/L
2,3,4,6-Tetrachlorophenol	2025-05-28	<0.20	ug/L
2,4,6-Trichlorophenol	2025-05-28	<0.25	ug/L
2,4-D	2025-05-28	<0.19	ug/L
2,4-Dichlorophenol	2025-05-28	<0.15	ug/L
Alachlor	2025-05-28	<0.02	ug/L
Atrazine + Desethyl-atrazine	2025-05-28	<0.01	ug/L
Azinphos-methyl	2025-05-28	<0.05	ug/L

Parameter	Sample Date(s)	Result Value Range	Unit of Measure
Benzene	2025-05-28 to 2025-11-10	<0.2	ug/L
Benzo[a]pyrene	2025-05-28	<0.004	ug/L
Bromoxynil	2025-05-28	<0.33	ug/L
Carbaryl	2025-05-28	<0.05	ug/L
Carbofuran	2025-05-28	<0.01	ug/L
Carbon Tetrachloride	2025-05-28 to 2025-11-10	<0.2	ug/L
Chlorobenzene	2025-05-28 to 2025-11-10	<0.3	ug/L
Chlorpyrifos (Dursban)	2025-05-28	<0.02	ug/L
Diazinon	2025-05-28	<0.02	ug/L
Dicamba	2025-05-28	<0.20	ug/L
Dichloromethane	2025-05-28 to 2025-11-10	<0.5	ug/L
Diclofop-methyl	2025-05-28	<0.40	ug/L
Dimethoate	2025-05-28	<0.06	ug/L
Diquat	2025-05-28	<1	ug/L
Diuron	2025-05-28	<0.03	ug/L
Glyphosate	2025-05-28	<1	ug/L
Malathion	2025-05-28	<0.02	ug/L
MCPA	2025-05-28	<0.00012	mg/L
Metolachlor	2025-05-28	<0.01	ug/L
Metribuzin (Sencor)	2025-05-28	<0.02	ug/L
Paraquat	2025-05-28	<1	ug/L

Parameter	Sample Date(s)	Result Value Range	Unit of Measure
PCBs Total	2025-05-28	<0.04	ug/L
Pentachlorophenol	2025-05-28	<0.15	ug/L
Phorate	2025-05-28	<0.01	ug/L
Picloram	2025-05-28	<1	ug/L
Prometryne	2025-05-28	<0.03	ug/L
Simazine	2025-05-28	<0.01	ug/L
Terbufos	2025-05-28	<0.01	ug/L
Tetrachloroethylene	2025-05-28 to 2025-11-10	<0.2	ug/L
Triallate	2025-05-28	<0.01	ug/L
Trichloroethylene	2025-05-28 to 2025-11-10	<0.2	ug/L
Trifluralin	2025-05-28	<0.02	ug/L
Vinyl Chloride	2025-05-28 to 2025-11-10	<0.2	ug/L
Carlisle Well Treated FDC05			
1,1-Dichloroethylene	2025-05-28 to 2025-11-10	<0.2	ug/L
1,2-Dichlorobenzene	2025-05-28 to 2025-11-10	<0.2	ug/L
1,2-Dichloroethane	2025-05-28 to 2025-11-10	<0.2	ug/L
1,4-Dichlorobenzene	2025-05-28 to 2025-11-10	<0.2	ug/L
2,3,4,6-Tetrachlorophenol	2025-05-28	<0.20	ug/L
2,4,6-Trichlorophenol	2025-05-28	<0.25	ug/L
2,4-D	2025-05-28	<0.19	ug/L
2,4-Dichlorophenol	2025-05-28	<0.15	ug/L

Parameter	Sample Date(s)	Result Value Range	Unit of Measure
Alachlor	2025-05-28	<0.02	ug/L
Atrazine + Desethyl-atrazine	2025-05-28	<0.01	ug/L
Azinphos-methyl	2025-05-28	<0.05	ug/L
Benzene	2025-05-28 to 2025-11-10	<0.2	ug/L
Benzo[a]pyrene	2025-05-28	<0.004	ug/L
Bromoxynil	2025-05-28	<0.33	ug/L
Carbaryl	2025-05-28	<0.05	ug/L
Carbofuran	2025-05-28	<0.01	ug/L
Carbon Tetrachloride	2025-05-28 to 2025-11-10	<0.2	ug/L
Chlorobenzene	2025-05-28 to 2025-11-10	<0.3	ug/L
Chlorpyrifos (Dursban)	2025-05-28	<0.02	ug/L
Diazinon	2025-05-28	<0.02	ug/L
Dicamba	2025-05-28	<0.20	ug/L
Dichloromethane	2025-05-28 to 2025-11-10	<0.5	ug/L
Diclofop-methyl	2025-05-28	<0.40	ug/L
Dimethoate	2025-05-28	<0.06	ug/L
Diquat	2025-05-28	<1	ug/L
Diuron	2025-05-28	<0.03	ug/L
Glyphosate	2025-05-28	<1	ug/L
Malathion	2025-05-28	<0.02	ug/L
MCPA	2025-05-28	<0.00012	mg/L

Parameter	Sample Date(s)	Result Value Range	Unit of Measure
Metolachlor	2025-05-28	<0.01	ug/L
Metribuzin (Sencor)	2025-05-28	<0.02	ug/L
Paraquat	2025-05-28	<1	ug/L
PCBs Total	2025-05-28	<0.04	ug/L
Pentachlorophenol	2025-05-28	<0.15	ug/L
Phorate	2025-05-28	<0.01	ug/L
Picloram	2025-05-28	<1	ug/L
Prometryne	2025-05-28	<0.03	ug/L
Simazine	2025-05-28	<0.01	ug/L
Terbufos	2025-05-28	<0.01	ug/L
Tetrachloroethylene	2025-05-28 to 2025-11-10	<0.2	ug/L
Triallate	2025-05-28	<0.01	ug/L
Trichloroethylene	2025-05-28 to 2025-11-10	<0.2	ug/L
Trifluralin	2025-05-28	<0.02	ug/L
Vinyl Chloride	2025-05-28 to 2025-11-10	<0.2	ug/L
Distribution			
Haloacetic Acids*	Running annual average for the last four quarters.	<5.3	ug/L
Total Trihalomethanes*	Running annual average for the last four quarters.	11.4	ug/L

*The Maximum Acceptable Concentration for Trihalomethanes and Haloacetic Acids in the distribution system is based on a running average of the results from all sampling events in the past four quarters. This running average can be found in the result value range column.

5.6 PARAMETERS EXCEEDING PRESCRIBED HALF-STANDARD

There were no Schedule 23 or 24 parameters that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards (O.Reg. 169/03).

6. LYNDEN DRINKING WATER SYSTEM

6.1 DEFINITIONS

AWQI: Adverse Water Quality Incident

CFU: Colony Forming Unit

MPN: Most Probable Number

HPC: Heterotrophic Plate Count

mg/L: milligrams per litre

mL: millilitre

N/A: Not Applicable

NTU: Nephelometric Turbidity Unit

ug/L: microgram per litre

P/A: Present/Absent

6.2 LEAD TESTING

Lynden DWS is exempt from sampling for lead in plumbing as per Schedule 15.1-5. (10) of O. Reg. 170/03. Relief is in place from taking residential and non-residential plumbing samples. Lead samples from the distribution system are collected every three years under the reduced schedule.

TABLE 6-1: SUMMARY OF LEAD TESTING UNDER SCHEDULE 15.1 OF REGULATION 170/03

Parameter	Points Sampled	Samples Taken	Result Value Range	Unit of Measure
Distribution				
Alkalinity	2	2	104 to 109	mg/L
pH - Field	2	2	8.85 to 9.04	pH

6.3 MICROBIOLOGICAL TESTING

TABLE 6-2: MICROBIOLOGICAL TESTING UNDER SCHEDULE 10, 11, 12 AND 17, 18 OF REGULATION 170/03

Parameter	Sample Date(s)	Number of Samples	Result Value Range	Unit of Measure
Lynden Well Raw FDL03				
Escherichia coli	2025-01-01 to 2025-12-31	53	0	MPN/100mL
Total Coliform	2025-01-01 to 2025-12-31	53	0	MPN/100mL
Lynden Well Treated FDL03				
Escherichia coli	2025-01-01 to 2025-12-31	53	ALL ABSENT	P/A/100mL
Heterotrophic Plate Count	2025-01-01 to 2025-12-31	53	0 to 1	CFU/1mL
Total Coliform	2025-01-01 to 2025-12-31	53	ALL ABSENT	P/A/100mL
Distribution				
Escherichia coli	2025-01-01 to 2025-12-31	159	ALL ABSENT	P/A/100mL
Heterotrophic Plate Count	2025-01-01 to 2025-12-31	159	0 to 3	CFU/1mL
Total Coliform	2025-01-01 to 2025-12-31	159	ALL ABSENT	P/A/100mL

6.4 OPERATIONAL TESTING

TABLE 6-3: OPERATIONAL TESTING UNDER SCHEDULE 7, 8 OR 9 OF REGULATION 170/03

NOTE: If results are obtained from continuous monitors, then 8760 is reported as the number of samples.

Parameter	Samples Taken	Result Value Range	Unit of Measure
Turbidity - Raw FDL03	53	0.35 to 1.63	NTU

Parameter	Samples Taken	Result Value Range	Unit of Measure
Free Chlorine – Treated FDL03	8760	1.25 to 2.95	mg/L
Free Chlorine - Distribution	365	0.63 to 2.46	mg/L

6.5 INORGANIC TESTING

TABLE 6-4: SUMMARY OF INORGANIC PARAMETERS REQUIRED BY REGULATION 170/03

Parameter	Sample Date(s)	Result Value Range	Unit of Measure
Lynden Well Treated FDL03			
Antimony	2025-05-28 to 2025-11-11	<0.0001	mg/L
Arsenic	2025-01-29 to 2025-11-11	0.0004	mg/L
Barium	2025-05-28 to 2025-11-11	0.423 to 0.479	mg/L
Boron	2025-05-28 to 2025-11-11	0.467 to 0.470	mg/L
Cadmium	2025-05-28 to 2025-11-11	<0.0001	mg/L
Chromium	2025-05-28 to 2025-11-11	<0.0001	mg/L
Fluoride	2025-05-28 to 2025-11-11	0.70 to 0.76	mg/L
Mercury	2025-05-28 to 2025-11-11	<0.05	ug/L
Nitrate as N	2025-01-29 to 2025-11-11	<0.02	mg/L
Nitrite as N	2025-01-29 to 2025-11-11	<0.01	mg/L
Selenium	2025-05-28 to 2025-11-11	<0.0001	mg/L
Sodium	2025-05-28 to 2025-11-11	55.7 to 57.0	mg/L
Uranium	2025-05-28 to 2025-11-11	0.021 to 0.022	ug/L

6.6 ORGANIC TESTING

TABLE 6-5: SUMMARY OF ORGANIC PARAMETERS REQUIRED BY REGULATION 170/03

Parameter	Sample Date(s)	Result Value Range	Unit of Measure
Lynden Well Treated FDL03			
1,1-Dichloroethylene	2025-05-28 to 2025-11-11	<0.2	ug/L
1,2-Dichlorobenzene	2025-05-28 to 2025-11-11	<0.2	ug/L
1,2-Dichloroethane	2025-05-28 to 2025-11-11	<0.2	ug/L
1,4-Dichlorobenzene	2025-05-28 to 2025-11-11	<0.2	ug/L
2,3,4,6-Tetrachlorophenol	2025-05-28	<0.20	ug/L
2,4,6-Trichlorophenol	2025-05-28	<0.25	ug/L
2,4-D	2025-05-28	<0.19	ug/L
2,4-Dichlorophenol	2025-05-28	<0.15	ug/L
Alachlor	2025-05-28	<0.02	ug/L
Atrazine + Desethyl-atrazine	2025-05-28	<0.01	ug/L
Azinphos-methyl	2025-05-28	<0.05	ug/L
Benzene	2025-05-28 to 2025-11-11	<0.2	ug/L
Benzo[a]pyrene	2025-05-28	<0.004	ug/L
Bromoxynil	2025-05-28	<0.33	ug/L
Carbaryl	2025-05-28	<0.05	ug/L
Carbofuran	2025-05-28	<0.01	ug/L
Carbon Tetrachloride	2025-05-28 to 2025-11-11	<0.2	ug/L

Parameter	Sample Date(s)	Result Value Range	Unit of Measure
Chlorobenzene	2025-05-28 to 2025-11-11	<0.3	ug/L
Chlorpyrifos (Dursban)	2025-05-28	<0.02	ug/L
Diazinon	2025-05-28	<0.02	ug/L
Dicamba	2025-05-28	<0.20	ug/L
Dichloromethane	2025-05-28 to 2025-11-11	<0.5	ug/L
Diclofop-methyl	2025-05-28	<0.40	ug/L
Dimethoate	2025-05-28	<0.06	ug/L
Diquat	2025-05-28	<1	ug/L
Diuron	2025-05-28	<0.03	ug/L
Glyphosate	2025-05-28	<1	ug/L
Malathion	2025-05-28	<0.02	ug/L
MCPA	2025-05-28	<0.00012	mg/L
Metolachlor	2025-05-28	<0.01	ug/L
Metribuzin (Sencor)	2025-05-28	<0.02	ug/L
Paraquat	2025-05-28	<1	ug/L
PCBs Total	2025-05-28	<0.04	ug/L
Pentachlorophenol	2025-05-28	<0.15	ug/L
Phorate	2025-05-28	<0.01	ug/L
Picloram	2025-05-28	<1	ug/L
Prometryne	2025-05-28	<0.03	ug/L
Simazine	2025-05-28	<0.01	ug/L

Parameter	Sample Date(s)	Result Value Range	Unit of Measure
Terbufos	2025-05-28	<0.01	ug/L
Tetrachloroethylene	2025-05-28 to 2025-11-11	<0.2	ug/L
Triallate	2025-05-28	<0.01	ug/L
Trichloroethylene	2025-05-28 to 2025-11-11	<0.2	ug/L
Trifluralin	2025-05-28	<0.02	ug/L
Vinyl Chloride	2025-05-28 to 2025-11-11	<0.2	ug/L
Distribution			
Haloacetic Acids*	Running annual average for the last four quarters	5.9	ug/L
Total Trihalomethanes*	Running annual average for the last four quarters	61.3	ug/L
*The Maximum Acceptable Concentration for Trihalomethanes and Haloacetic Acids in the distribution system is based on a running average of the results from all sampling events in the past four quarters. This running average can be found in the result value range column.			

6.7 PARAMETERS EXCEEDING PRESCRIBED HALF-STANDARD

There were no Schedule 23 or 24 parameters that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards (O.Reg. 169/03).