



February 18, 2026

Dave Kester
Manager of Public Works
Municipality of Bluewater
14 Mill Ave
Zurich, ON N0M 2T0

Re: Requirement under the Safe Drinking Water Act for a Summary Report

Dear Mr. Kester

Attached is the 2025 Summary Report for the Bluewater Lakeshore Distribution System for January 1st to December 31st, 2025. This report has been completed in accordance with Section 11 and Schedule 22 of O. Reg. 170/03, under the Safe Drinking Water Act.

This Summary Report is to be provided to the members of council by March 31st, 2026.

Section 12 of O. Reg. 170/03, requires the Annual Report required under Section 11 of O. Reg. 170/03 to be made available for inspection by any member of the public during normal business hours, without charge. The reports should be made available for inspection at the office of the Municipality, or at a location that is reasonably convenient to the users of the water system.

Please feel free to contact me should you require any additional information regarding these reports. I can be reached at 519-441-0441

Sincerely,

Katelyn Barrowcliffe
Process and Compliance Technician
Midwest Region
Ontario Clean Water Agency

cc. Sam Smith, OCWA Regional Hub Manager
Paul Sherban, OCWA Senior Operations Manager
Maegan Garber, OCWA Safety, Process and Compliance Manager

Bluewater Lakeshore Distribution System

Waterworks # 260006542
System Category – Large Municipal Residential

Annual Drinking Water Report

Prepared For: Municipality of Bluewater

Reporting Period of January 1 – December 31, 2025

Issued: February 18, 2026

Revision: 0

Operating Authority:



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Overview

This report fulfills requirements of Ontario Regulation 170/03 Section 11 and Schedule 22. This report must be made available to anyone that requests a copy of the report. By March 31, 2026 the report must be provided to members of municipal council.

Report Availability

This system does not serve more than 10 000 residences. The annual report will be available to residents at the Municipal Office as well as on the municipal website. Notification will be at the Municipal Office and copies provided free of charge, if requested. The Municipal Office is located at 14 Mill Avenue, Zurich, Ontario, N0M 2T0.

System Process Description

The Bluewater Lakeshore Distribution System trunk main (250mm, 300mm, 350mm) is fed from the Lake Huron Primary Water Supply System (LHPWSS) north along Highway 21 to Bayfield. The Stanley Booster Pumping Station is located on the southwest corner of Highway 21 and Danceland Road. This booster station increases system pressure during periods of high demand. An elevated storage tank, with a total volume of 4000 m³ supplies water to the remainder of the residents of Bayfield. This elevated tank facility contains standby re-chlorination equipment, two chemical metering pumps (one duty and one standby) and an online chlorine analyzer. The online chlorine analyzer residuals are monitored by a SCADA system located in Zurich. This system serves a population of 4000 residents.

Treatment Chemicals

Table 1 below provides a list of water treatment chemicals used by the system during the period covered by the report.

Table 1: *Treatment Chemicals*

Chemical Name	Use	Supplier
Sodium Hypochlorite	Secondary Disinfection	Jutzi

Summary of Non-Compliance

Adverse Water Quality Incidents

Under the Safe Drinking Water Act, O. Reg 170/03, any adverse water quality incidents (AWQI) are required to be reported to the Ministry of the Environment, Conservation and Parks (MECP) and corrective action taken. Refer to Table 2 below for a summary of AWQI incidents in 2025.

Table 2: *Adverse Water Quality Incidents*

Date	AWQI #	Problem	Details	Legislation	Corrective Action Taken
There were no AWQI's reported during the reporting period.					

Non-Compliance

Under the *Safe Drinking Water Act*, O. Reg 170/03, any events where legislative requirements were not met are required to be reported to the MECP and corrective actions taken. Refer to Table 3 below for a summary of non-compliance incidents in 2025.

Table 3: *Summary of Non-Compliance Incidents*

Legislation	Requirement(s) system failed to meet	Duration of the failure (i.e. date(s))	Corrective Action	Status
There were no non-compliance issues reported during the reporting period.				

Non-Compliance Identified in a Ministry Inspection

The routine MECP Inspections have an Inspection Rating Record. This record evaluates the system to provide information for the owner/operator on areas that need to be improved. The particular areas that were evaluated for the Bluewater Lakeshore Distribution System were: Certification and Training, Logbooks, Operations Manuals, Reporting and Corrective Actions, Treatment Processes, and Water Quality Monitoring. The Bluewater Lakeshore Distribution System inspection was conducted on September 25th, 2025 by Dwayne Reid of the Ministry of the Environment, Conservation and Parks (MECP). The inspection review period was November 1, 2024 to August 31, 2025. An inspection rating of 100% was received. Refer to Table 4 below for non-compliances identified in the report.

Table 4: *Non-Compliances Identified in a Ministry Inspection*

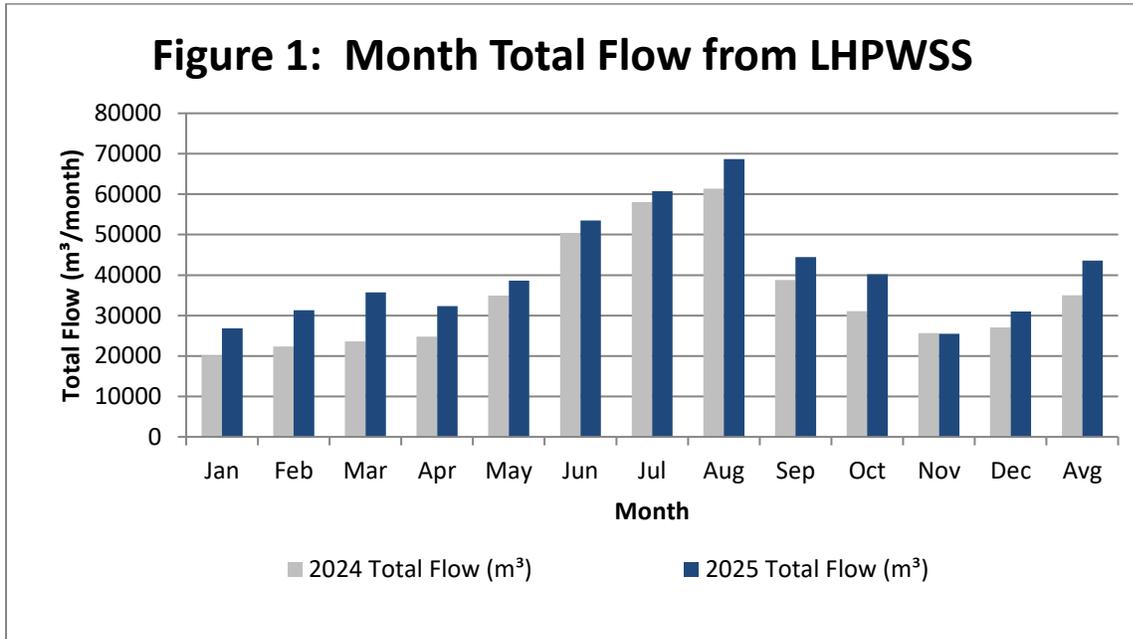
Item #	Issue Identified in Report/Order	Required Action Identified in Report	Comply by Date as per the Report	Status
There were no non-compliance issues reported during the reporting period.				

Flows

Flows to Distribution System from LHPWSS

The total flow to the Bluewater Lakeshore Distribution System from LHPWSS was 489 042 m³. This is a 17% increase from 2024. See Figure 1 below for the monthly flows to the Bluewater Lakeshore Distribution System.

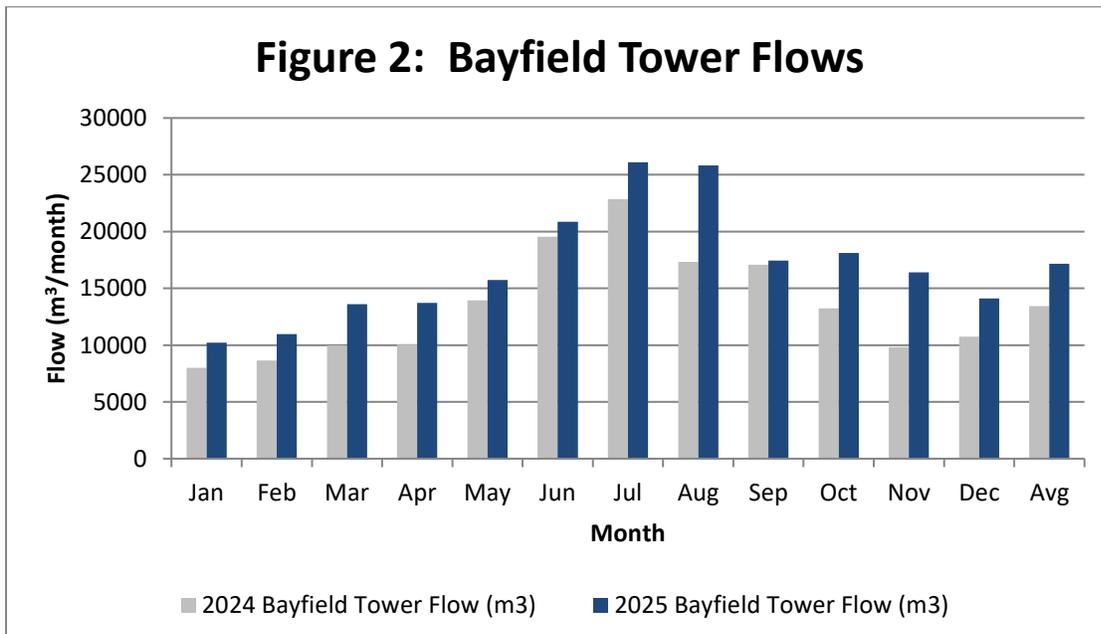
Figure 1: Monthly Flows to the Bluewater Lakeshore Distribution System



Flows through the Bayfield Water Tower

Flow is also measured at the Bayfield Water Tower. Figure 2 provides the total monthly flow of water that has passed through the tower.

Figure 2: Bayfield Tower Flows



Total and Average Daily Flows by Month

The Bluewater Lakeshore Distribution System Municipal Drinking Water License (License Number: 045-102) does not identify a system rated capacity. The agreement between the Municipality of Bluewater and the LHPWSS Board of Management (Regional Water Supply) does not specify a maximum water taking volume. The 2025 total flow and average daily flows per month are listed in Table 5 below.

Table 5: Bluewater Lakeshore Distribution System Flows

Month	Total Flow (m ³)	Average Daily Flow (m ³)
January	26 866	866.65
February	31 334	1080.48
March	35 740	1152.90
April	32 369	1078.97
May	38 664	1247.23
June	53 491	1783.03
July	60 734	1959.16
August	68 665	2215.00
September	44 488	1482.93
October	40 173	1295.90
November	25 501	850.03
December	31 017	1000.55
TOTAL	489 042	-
MAXIMUM	68 665	2215.00
AVERAGE	40 754	1334.40

Regulatory Sample Results Summary

Microbiological Testing

To meet regulatory requirements, the distribution system is sampled on a weekly basis at various locations for E. coli, Total Coliforms and heterotrophic plate count (HPC). The regulatory limit for Total Coliform and E. coli is zero, heterotrophic plate count (HPC) doesn't have a limit. Refer to Table 6 below.

Table 6: Microbiological Testing Summary

	No. of Samples Collected	Range of E.Coli Results (cfu/100mL)		Range of Total Coliform Results (cfu/100mL)		No. of HPC Samples Collected	Range of HPC Results (cfu/mL)	
		Min	Max	Min	Max		Min	Max
Distribution Water	208	0	0	0	0	52	10	440

Operational Testing

Free chlorine residuals are monitored throughout the distribution system to meet regulatory requirements and ensure adequate secondary disinfection is provided. The regulatory requirement for free chlorine residuals is a minimum of 0.05 mg/L with an objective of 0.20 mg/L throughout the distribution system. Refer to Table 7 below.

Table 7: Free Chlorine Residuals

Parameter	No. of Samples Collected	Range of Results	
		Min	Max
Free Chlorine Residual, grab (mg/L)	364	0.32	1.74

Inorganic Parameters

Schedule 15.1 sampling is required under O. Reg 170/03, which includes sampling for lead, alkalinity and pH. The Bluewater Lakeshore Distribution system is under reduced sampling. As such, no residential plumbing samples are required to be collected. Monitoring the pH and alkalinity in the distribution system is essential to ensure adequate buffering for corrosion control and to minimize exposure to metals such as lead. Refer to Table 8 below.

Table 8: Schedule 15.1 Sample Results

Distribution System	Number of Samples	Range of Results		MAC	Number of Exceedances
		Minimum	Maximum		
Alkalinity (mg/L)	6	81	93	n/a	n/a
pH	6	7.91	8.32	n/a	n/a
Lead (ug/l)	6	0.01	0.45	10	0

Organic Parameters

Organic parameters are tested quarterly as a requirement under O. Reg 170/03. This includes testing for disinfection by-products including Trihalomethanes and Haloacetic acids. Refer to Table 9 below.

Table 9: Organic Parameter Testing

Distribution Water	Annual Running Average	MAC	Number of Exceedances
Trihalomethane: Total (ug/L)	32.75	100	0
Haloacetic Acids: Total (ug/L)	10.82	80	0

MAC = Maximum Allowable Concentration as per O. Reg 169/03

Additional Legislated Samples

There are no additional sampling requirements within the Bluewater Lakeshore Distribution System.

Major Maintenance and Capital Summary

The Bluewater Lakeshore Distribution System completed a number of repairs, replacements and projects as listed below. These represent the major expenses incurred in 2025. Refer to Table 10.

Table 10: Major Maintenance

Item	Description
1	Repaired Bayfield Tower Analyzer and Replaced Chlorine Injector
2	Repaired Chlorine Metcon Board at Bayfield Tower
3	Completed Back-feed process to accommodate LHPWSS Shutdown 8 times
4	Bayfield Tower Replaced both chlorine pumps
5	Stanley Booster Upgraded facility to fibre
6	Stanley Booster Completed MCC panel inspection and service
7	Stanley Booster Repaired transfer switch wiring on generator
8	Bayfield Tower Replaced online analyzer

9	Installed new water service to Fire Hall
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Revision History

Date	Revision #	Revision Notes
2026-02-18	0	Issued Report