Ontario Clean Water Agency
Agence Ontarienne Des Eaux

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 Hensall-Zurich 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

Hensall-Zurich Distribution System

Waterworks #260091650
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:

OCWA

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

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Overview

This report fulfills requirements of Ontario Regulation 170/03 Section 11 and Schedule 22. The 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 reports 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 Ave, Zurich, Ontario, N0M 2T0.

System Process Description

The Hensall-Zurich Distribution System was deemed combined by the Ministry of the Environment, Conservation and Parks (MECP) in November, 2023. The system is a combination of the previous Hensall Distribution and Zurich Drinking Water Systems and serves a population of approximately 1990. The Hensall-Zurich Distribution System holds the previous Waterworks number from the Hensall Distribution System. A new Drinking Water Works Permit (DWWP), Municipal Drinking Water Licence (MDWL) and system classification certificate were issued. The distribution system is classified as a Class 2 Water Distribution System.

The distribution system is fed from a trunk main from the Lake Huron Primary Water Supply System (LHPWSS) that provides primary and secondary disinfection. This 600 mm main runs east from Grand Bend along Huron Road towards Exeter. This main terminates at a reservoir and pumping station (EH1) located at the corner of Huron Road and Airport Line. This station serves Hensall, Zurich and Exeter and is operated by LHPWSS. A 400 mm main runs north along Airport Road to the intersection of County Road #84 (Zurich Hensall Road) and Airport Line to serve Hensall and Zurich. This main terminates in a meter chamber (EH3) which is equipped with a flow meter, a pressure reducing valve and an electrically controlled valve that controls the flow of the water into the Hensall-Zurich Distribution System. All the infrastructure supplying the Hensall-Zurich Distribution System is controlled by the LHPWSS. This includes the electrically controlled valve in the EH3 meter chamber which is controlled from the LHPWSS SCADA system based on the level of the water in the Hensall Tower. On exiting the EH3 meter chamber, the system becomes the responsibility of OCWA.

From EH3, the water flows into the Hensall-Zurich Distribution System. This system consists of a combination of cast iron, ductile iron and PVC water mains ranging in size from 100 mm to 400 mm. There is an elevated storage tank (Hensall Tower) located on 82 Mill Street that has a capacity of 1390 m^3. The Hensall Tower replaced the previous elevated storage tank located on Richmond Street North. The previous elevated tank has since been decommissioned. The Hensall Tower maintains the system pressure when the system is isolated from the LHPWSS supply. There is no rechlorination on site, however, there is an online chlorine analyzer to monitor secondary disinfection.

The Babylon Monitoring Station is located at the corner of Zurich Hensall Road and Babylon Line. An online chlorine analyzer is installed and monitors the chlorine residual in the distribution system. The Zurich PRV Chamber consists of one 50 mm Pressure Reducing Valve (PRV) and one 200mm PRV which regulates the pressure from the Hensall Tower/EH3.

The Hensall-Zurich Distribution System also has one underground storage reservoir. The Zurich reservoir is located at 50 Main Street and has a capacity of 1149 m^3. A diesel generator is supplied for back-up power. Chlorine residuals are monitored through a chlorine analyzer. This facility also houses the SCADA system for the Bluewater Water and Wastewater Systems.

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 MECP and corrective action taken. Refer to Table 1 below for a summary of AWQI incidents in 2025.

Table 1: *Adverse Water Quality Incidents*

Date	AWQI #	Problem	Details	Legislation	Corrective Action Taken
There were no AWQI's reported during this 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 2 below for a summary of non-compliance incidents in 2025.

Table 2*: 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 Hensall-Zurich Distribution System were: Certification and Training, Logbooks, Operations Manuals, Treatment Processes, and Water Quality Monitoring. The Hensall-Zurich Distribution System inspection was conducted on November 26th, 2025 by Dwayne Reid of the Ministry of the Environment, Conservation and Parks (MECP). The inspection review period was November 1, 2024 to October 31, 2025. An inspection rating of 100% was received. Refer to Table 3 below for non-compliances identified in the report.

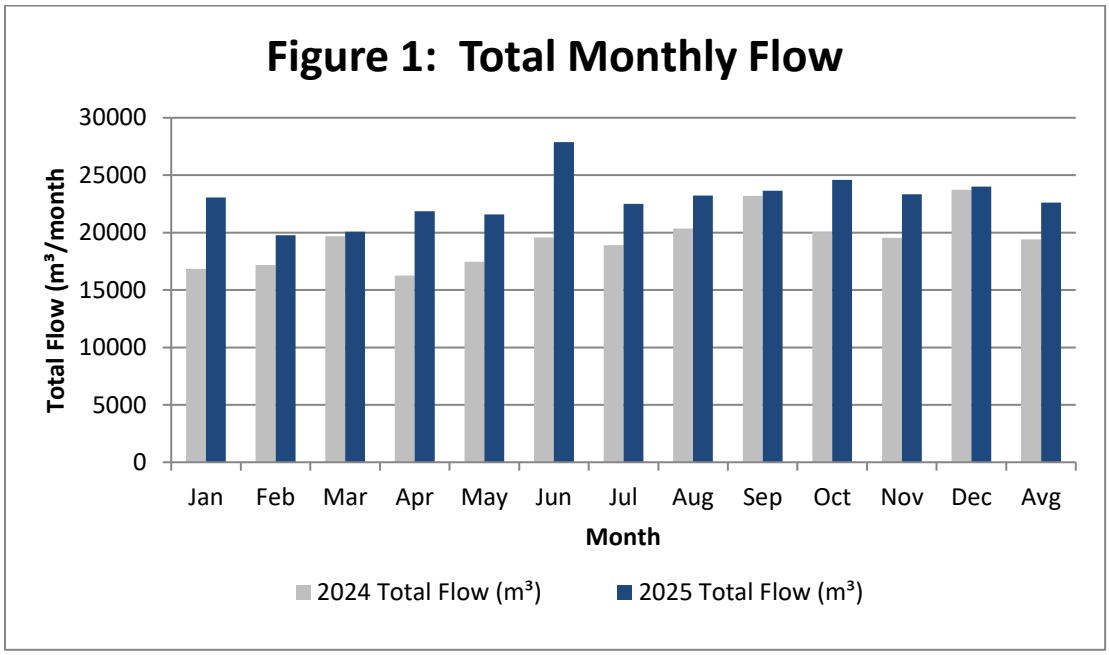
Table 3: *Non-Compliances Identified in a Ministry Inspection*

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

The total flow to the Hensall-Zurich Distribution System from LHPWSS was 275 526 m^3. This is an 18% increase from the total flow in 2024 which was 232 739 m^3. See Figure 1 below for monthly average flows to the Hensall-Zurich Distribution System.

Figure 1: *Monthly Flows to the Hensall-Zurich Distribution System*



The Hensall-Zurich Distribution System is operated under the MDWL (License Number: 045-101). This license 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 total flows and average daily flows per month in 2025 are listed in Table 4 below. The maximum total and average daily flow are also listed.

Table 4: *Hensall-Zurich Distribution System Flows*

Month	Total Flow (m^3)	Average Daily Flow (m^3)
January	23 053	743.65
February	19 776	681.93
March	20 075	647.58
April	21 852	728.40
May	21 573	695.60
June	27 887	1783.03
July	22 499	725.77
August	23 221	749.06
September	23 655	788.50
October	24 587	793.13
November	23 342	778.07
December	24 006	774.39
TOTAL	275 526	-
MAXIMUM	27 887	1783.03
AVERAGE	22 621	824.12

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, HPC doesn't have a limit. Refer to Table 5 below for a summary of testing results.

Table 5: *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	209	0	0	0	0	52	10	30

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 residual is a minimum of 0.05 mg/L with an objective of 0.20 mg/L throughout the distribution system. Refer to Table 6 below for free chlorine residual results.

Table 6: *Free Chlorine Residuals*

Parameter	No. of Samples Collected	Range of Results	
		Minimum	Maximum
Free Chlorine Residual, grab (mg/L)	364	0.35	1.25

Inorganic Parameters

Schedule 15.1 Sampling is required under O. Reg 170/03. This includes sampling for lead, alkalinity and pH. The Hensall-Zurich 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 7 below for Schedule 15.1 sampling results.

Table 7*: Schedule 15.1 Sample Results*

Distribution System	Number of Samples	Range of Results		MAC (ug/L)	Number of Exceedances
		Minimum	Maximum		
Alkalinity (mg/L)	4	83	98	n/a	n/a
pH	4	8.08	8.21	n/a	n/a
Lead (ug/l)	4	0.04	0.96	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 8 below for organic parameter testing results.

***Table 8**: Organic Parameter Testing*

Distribution Water	Annual Running Average	MAC	Number of Exceedances
Trihalomethane: Total (ug/L)	33.00	100	0
Haloacetic Acids: Total (ug/L)	11.65	80	0

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

Additional Legislated Samples

There are no additional sampling requirements within the Hensall-Zurich Distribution System.

Major Maintenance and Capital Summary

The Hensall-Zurich Distribution System completed several repairs, installations, replacements and projects as listed below. These represent the major expenses incurred in 2025. Refer to Table 9 below.

Table 9: *Major Maintenance*

Item	Description
1	Knell Cres Hydrant Repair
2	Babylon Monitoring Station CL-17 Analyzer probe replaced
3	Updated SCADA Communications
4	Zurich Reservoir Inspection
5	Zurich Reservoir Internal piping repair
6	Zurich Reservoir Analyzer Replacement
7	Hensall Tower Analyzer Replacement
8	Hensall Tower Generlink Installation
9	Goshen Street North Water Installation
10	Three Water Service Repairs on Goshen Street North
11	Edward St & Goshen St Water Service Repair
12	Victoria Street Water Service Repair
13	Main Street West Water Service Repair
14	Goshen Street North Water Saddle Repair

Revision History

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