



## **Pelham Distribution System**

**Town of Pelham**

### **2024 Annual Water Quality Report**

(Prepared under Ontario Regulation 170/03)

**January 1 to December 31, 2024**

**Drinking Water System Number 260001604**

**Municipal Drinking Water License # 072-101**

**Municipal Water Works Permit # 072-201**

## 1. Purpose

This annual water quality report was prepared by the Director of Public Works and Manager of Public Works for the Owner of the Pelham Distribution System, the Corporation of the Town of Pelham.

This report summarizes the quality of drinking water supplied by the Town of Pelham Distribution System 260001604.

This report satisfies the requirements of Ontario Regulation 170/03 – Drinking Water Systems.

## 2. System Overview

The Corporation of the Town of Pelham operates a Class 2 water distribution subsystem which is supplied with treated water by the Regional Municipality of Niagara from the Welland Water Treatment Plant, located at #4 Cross Street in Welland. The source of the water for the treatment plant is the Welland Recreational Waterway.

The treated water is transported to the Town by way of a 750mm diameter watermain to the Shoalts Drive Reservoir located at #5 Shoalts Drive in Fonthill. Water is distributed from the reservoir by way of a series of watermains and a Regional elevated tank located at #177 Highway #20 West in Fonthill, to lands within the designated service area.

The Town of Pelham distributes drinking water to approximately 14,025 residents in Fonthill and Fenwick through approximately 86km's of watermain varying in size from 50mm to 400mm diameter. In addition, there is 6.5km's in length owned by the Regional Municipality of Niagara which is connected to the Pelham Distribution System and also distributes water to lands within the service area.

The watermains are primarily cast iron, asbestos concrete, high pressure concrete pipe, copper and PVC piping. There are approximately 613 hydrants, and 806 valves located throughout the system.

The Town owns a bulk water fill station and residential pressure boosting pump located on the Niagara Region's Elevated Tank Property. This pump is used to improve water pressure in the Chestnut Ridge development area. The normal operating pressure in the area is low due to its geographic location in relation to the elevated tank that supplies distribution supply and pressure by way of gravity.

## 3. Monetary Expenses Incurred

To ensure safe and efficient operations, the following distribution system repairs or upgrade projects took place:

1. General repairs and maintenance (materials and supplies) - \$90,000
2. Cast iron watermain replacement project NW Fonthill (Daleview, Strathcona, Pinecrest) - \$956,000

#### 4. Summary of Adverse Water Quality Incidents

The following table summarizes the notices of adverse water quality incidents (AWQI) submitted in accordance with the Safe Drinking Water Act. Adverse water quality incidents are reported to the Spills Action Centre and the Medical Officer of Health.

Where there have been no adverse water quality incidents for the reporting period, the table will show "NIL".

<b>Incident Date</b>	<b>Location</b>	<b>Adverse Condition</b>	<b>Corrective Action</b>	<b>Notice of Issue Resolution</b>
No AWQI incident to report	NIL	NIL	NIL	NIL

#### 5. Water Quality Test Results

Reported results that are shown with "ND" (non-detect) instead of a numerical value indicates that the sample result is below the lowest possible detection limit for the parameter.

##### **Microbiological Testing**

Microbiological testing carried out under Schedule 10 of Ontario Regulation 170/03 Drinking Water Systems, during this reporting period.

<b>Location</b>	<b>Number of Samples</b>	<b>Range of E.Coli (minimum - maximum number)</b>	<b>Range of Total Coliform Results (minimum - maximum number)</b>	<b>Prescribed Standard*</b>	<b>Unit of Measure</b>
Distribution	547	0-0	0-0	Not Detectable	CFU/100ml

\*Prescribed standards are copied from Ontario Regulation 169/03 Ontario Drinking Water Quality Standards.

## Heterotrophic Plate Count Testing

Heterotrophic plate count (HPC) testing is conducted on distribution samples. The HPC test is used as a tool to monitor overall quality, but the results are not indicators of water safety.

Location	Number of Samples	Range of HPC results (minimum – maximum number)	Unit of Measure	Standard
Distribution	547	0-160	CFU/ml	< 500 CFU/100mL (AWWA c651-14)

## Operational Testing

Operational testing carried out under Schedule 7 of Ontario Regulation 170/03 – Drinking Water Systems, during this reporting period. Chlorine residual grab samples are taken throughout the system in accordance with QMS PROC 016 of the Town of Pelham Drinking Water System Operational Plan.

Parameter	Number of Samples	Range of Results (minimum – maximum number)	Unit of Measure	Standard
Chlorine	1041	0.20 – 1.15	mg/l	>=0.05 mg/L <=4.0 mg/L

## Additional Testing – Lead

Location	Number of Samples	Lead Results <1.0 to 10	Unit of Measure	Number of Exceedances	Standard
Plumbing	Exempt	NIL	Ug/l	NIL	0.01 mg/L
Distribution	8	<1.0	Ug/l	NIL	0.01 mg/L

## Additional Testing – Organic Parameters

Parameter	Sample Date	Result Value*	Unit of Measure	Exceedance	Standard*
<b>Haloacetic Acid</b> (ARA)	December 2024	10.98	Ug/L	NIL	80 ug/L
<b>THM</b> (ARA)	December 2024	30.62	Ug/L	NIL	100 ug/L

\*Latest Annual Running Average (ARA)