



Chatham-Kent

Public Utilities Commission

2025 Annual Drinking Water Summary Report

Wheatley Drinking Water System

Reporting Period of January 1st – December 31st, 2025



This Annual Drinking Water Summary Report is prepared in accordance with the following requirements:

Ontario Regulation 170/03 – Drinking Water Systems	
Section 11	Annual Reports
Schedule 22	Summary Reports for Municipalities

1. INTRODUCTION AND BACKGROUND

1.1. System Description

Drinking-Water System Number:	220003332
Drinking-Water System Name:	Wheatley Drinking Water System
Drinking-Water System Owner:	PUC for the Municipality of Chatham-Kent
Drinking-Water System Category:	Large Municipal Residential
Municipal Drinking Water Licence:	027-102
Drinking Water Works Permit:	027-202
Period being reported:	January 1 – December 31, 2025

Source Water:

Surface Water	Lake Erie
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Treatment (Temporary System):

The Wheatley Temporary Water Treatment Plant is located at 115 Detroit Line, Wheatley.

The temporary water treatment plant returned to service from May 10 to December 15, 2025.

From approximately November 2024, the Wheatley distribution system was supplied water from the Leamington Distribution System, which is supplied water from the Union Water Supply System located in the hamlet of Union, Ontario.

Pre-Treatment	Microstrainer
Filtration	Membrane
Primary Disinfection	Chlorination – Sodium Hypochlorite

Treatment (Existing Rehabilitated System):

The Wheatley Water Treatment Plant is located at 115 Detroit Line, Wheatley.

The existing water treatment plant underwent rehabilitation following a fire inside the water treatment plant in September 2023. Subsequent to the rehabilitation, the water treatment plant returned to service supplying water to the distribution systems on December 15, 2025.

Coagulation	Aluminum Sulfate / Polymer
Flocculation & Clarification	Up Flow Clarifiers
Filtration	Conventional Sand Filtration
Primary Disinfection	Chlorination – Chlorine Gas
Taste & Odour:	Powdered Activated Carbon

Distribution:

The Wheatley Water Distribution System consists of approximately 380 km of watermains which services the town of Wheatley, the town of Tilbury, and portions of the former townships of Romney and Tilbury East and the Municipality of Lakeshore. Population served is approximately 10,500.

Secondary Disinfection	Chlorination – Sodium Hypochlorite Chlorination – Chlorine Gas
Storage	Wheatley Elevated Tank Tilbury Elevated Tank
Re-chlorination	Tilbury Re-chlorination Station
Storage & Pumping	Tilbury Reservoir & Booster Pumping Station



1.2. List all Drinking-Water Systems (if any), which receive all their drinking water from your system:

Drinking Water System Name	Drinking Water System Number
<i>Large Municipal Year Round Residential in Leamington:</i> Leamington (Wheatley) Distribution System	260087048
<i>Non Municipal Year Round Residential in Chatham-Kent:</i> D & O Waterline Association Mint Waterline Distribution System	260091793 260091767
<i>Non Municipal Year Round Residential in Lakeshore:</i> 3 rd Concession Waterline Association 3 rd & 4 th Concession Waterline Association KOA Waterline Association Richardson Sideroad Waterline Association Tecumseh Road Waterline Association Tilbury Townline Waterline Association	260086125 260086203 260086138 260086190 260086151 260086164
<i>Small Drinking Water System in Lakeshore:</i> Cedar Inn Waterline Association	768003593

1.3. Description and breakdown of monetary expenses incurred

Expense	Cost (\$)
Laboratory Analysis	34,000
SCADA, Controls, Communication & Associated Equipment	13,000
Diesel Fuel	4,100
Chlorination System Repair Equipment	3,800
Sodium Hypochlorite	3,600

2. WATER QUANTITY
2.1. System Performance

According to the Municipal Drinking Water License, rated capacity is determined by the maximum daily treated volume from the treatment subsystem to the distribution system.

Wheatley Temporary Water Treatment Plant:

Rated Capacity: Maximum Daily Treated Volume m³/day	Maximum Daily Treated Volume m³/day	Maximum Daily Treated Volume vs Rated Capacity %
8,640	6,832	79

Wheatley Water Treatment Plant:

Rated Capacity: Maximum Daily Treated Volume m³/day	Maximum Daily Treated Volume m³/day	Maximum Daily Treated Volume vs Rated Capacity %
23,846	8,365	35

2.2. Total Treated Water flows from the treatment subsystem to the distribution system:

The following tables outlines total monthly flow, average daily flow, and maximum daily flow supplied to the distribution system from the Wheatley Water Treatment Plant's Temporary Water Treatment Plant and from the Wheatley Water Treatment Plant. Additionally, the average daily flows and maximum daily flows are compared to the rated capacity outlined in the Municipal Drinking Water License.

Wheatley Temporary Water Treatment Plant:

Month	Total Monthly Flow m³/day	Average Daily Flow m³/day	% of Rated Capacity	Maximum Daily Flow m³/day	% of Rated Capacity
Limits			100	8,640	100
January					
February					
March					
April					
May	96,730	4,397	51	6,291	73
June	136,670	4,556	53	5,651	65
July	163,780	5,283	61	6,235	72
August	177,156	5,715	66	6,832	79
September	159,553	5,318	62	6,251	72
October	141,342	4,559	53	5,770	67
November	73,991	3,523	41	4,892	57
December					
	Total Yearly Flow m³/day	Annual Average m³/day	Maximum %	Maximum m³/day	Maximum %
	949,221	4,843	66	6,832	79

Wheatley Water Treatment Plant:

Month	Total Monthly Flow m ³ /day	Average Daily Flow m ³ /day	% of Rated Capacity	Maximum Daily Flow m ³ /day	% of Rated Capacity
Limits			100	23,846	100
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December	87,143	5,126	21	8,365	35
	Total Yearly Flow m ³ /day	Annual Average m ³ /day	Maximum %	Maximum m ³ /day	Maximum %
	87,143	5,126	21	8,365	35

2.3. Total Treated Water flows from the treatment subsystem to the distribution system (5 years):

The following table outlines historic total monthly flows from January 2021 until the end of the reporting period.

Month	2021 Total Monthly Flow m ³ /day	2022 Total Monthly Flow m ³ /day	2023 Total Monthly Flow m ³ /day	2024 Total Monthly Flow m ³ /day	2025 Total Monthly Flow m ³ /day
January	177,422	204,786	186,404		
February	168,093	178,272	160,678		
March	208,226	198,426	191,859		
April	217,612	194,590	203,776		
May	268,145	258,614	253,485	34,587	96,730
June	268,097	284,072	266,568	135,590	136,670
July	257,028	305,918	301,823	141,000	163,780
August	315,125	300,652	350,123	167,024	177,156
September	329,824	299,561	146,876	171,053	159,553
October	263,331	256,527		163,361	141,342
November	211,264	216,848		57,062	73,991
December	196,101	172,484			87,143
	Total Yearly Flow m³/day	Total Yearly Flow m³/day	Total Yearly Flow m³/day	Total Yearly Flow m³/day	Total Yearly Flow m³/day
	2,880,268	2,870,750	2,061,592	869,677	1,036,364

3. OPERATIONAL TESTING

3.1. Operational testing done under Schedule 7 of Regulation 170/03 during the period covered by this Annual Report:

As per Schedule 7 of Regulation 170/03, the Wheatley Drinking Water System must ensure that sampling and testing for turbidity is carried out by continuous monitoring equipment on each filter effluent line. Additionally, sampling and testing for free chlorine residuals must be carried out by continuous monitoring equipment where the intended contact time had been completed.

Parameter	Number of Grab Samples	Range of Results (min #) - (max #)
Turbidity (Filter Discharge)	8760	0.010 - 1.000 NTU
Chlorine (Reservoir Discharge)	8760	0.14 – 2.12 mg/L
Fluoride	Not Applicable	

NOTE: For continuous monitors use 8760 as the number of samples.

4. WATER QUALITY MONITORING

4.1. Microbiological Testing done under the Schedule 10 of Regulation 170/03, during this reporting period:

As per Schedule 10 of Regulation 170/03, the Wheatley Drinking Water System is required to take the following samples:

Raw Water:

A minimum of one raw water sample per week to be tested for Escherichia coli (E.coli) and total coliforms (TC).

Treated Water:

A minimum of one treated water sample is required per week to be tested for E. coli, TC, and heterotrophic plate count (HPC).

Distribution Water:

At least eight distribution samples, plus one additional distribution sample for every 1,000 people served by the system, are taken every month, with at least one of the samples being taken in each week. Each distribution sample is tested for E.coli and TC and 25% of distribution samples are tested for HPC.

Private Water Systems:

There are nine private water systems supplied by the Wheatley Drinking Water System, each system sampled once per month to be tested for E. coli, TC, and HPC. Cedar Inn Waterline Association is sampled and tested for E. coli and TC only.

	Number of Samples	Range of E. coli Results (min #) - (max #)	Range of Total Coliform Results (min #) - (max #)	Number of HPC Samples	Range of HPC Results (min #) - (max #)
Raw	31	< 10 – 310	< 10 – 1,600	0	
Treated	31	0 – 0	0 – 0	31	< 10 – 90
Distribution	440	0 – 0	0 – 0	432	< 10 – 140
3rd Concession Waterline Association	12	0 - 0	0 - 0	12	< 10 – 30
3rd & 4th Concession Waterline Association	12	0 - 0	0 - 0	12	< 10 - < 10
KOA Waterline Association	12	0 - 0	0 - 0	12	< 10 - < 10
Richardson Sideroad Waterline Association	12	0 - 0	0 - 0	12	< 10 - < 10
Tecumseh Road Waterline Association	12	0 - 0	0 - 0	12	< 10 - 10
Tilbury Townline Waterline Association	12	0 - 0	0 - 0	12	< 10 – 80
D & O Waterline Association	12	0 - 0	0 - 0	12	< 10 - 10
Mint Waterline Association	12	0 - 0	0 - 0	12	< 10 - <10
Cedar Inn Waterline Association	12	0 - 0	0 - 0	0	

4.2. Summary of Inorganic parameters tested during this reporting period or the most recent sample results:

As per Schedule 13 of Regulation 170/03, the Wheatley Drinking Water System is required to take a minimum of one treated water sample to be tested for the parameters outlined in Schedule 13 and 23 as reported in the table below.

Any results displayed as less than (<) are below the detection limit of the accredited third-party laboratory.

Parameter	Sample Date	Result Value	MAC* Limit	Unit of Measure	Exceedance
Antimony	Aug 12	< 0.50	6	ug/L	No
Arsenic	Aug 12	1.1	10	ug/L	No
Barium	Aug 12	20	1,000	ug/L	No
Boron	Aug 12	20	5,000	ug/L	No
Cadmium	Aug 12	< 0.090	5	ug/L	No
Chromium	Aug 12	< 5.0	50	ug/L	No
Mercury	Aug 12	< 0.0001	0.001	mg/L	No
Selenium	Aug 12	< 2.0	50	ug/L	No
Sodium	Nov 17	11,000	20,000	ug/L	No
Uranium	Aug 12	0.34	20	ug/L	No
Fluoride	Nov 17	0.11	1.5	mg/L	No
Nitrite	Nov 17	< 0.010	1	mg/L	No
Nitrate	Nov 17	<0.10	10	mg/L	No
Nitrite + Nitrate	Nov 17	<0.10	-	mg/L	No

* MAC: Maximum Acceptable Concentration

4.3. Summary of Organic parameters sampled during this reporting period or the most recent sample results:

As per Schedule 13 of Regulation 170/03, the Wheatley Drinking Water System is required to take a minimum of one treated water sample to be tested for the parameters outlined in Schedule 24 as reported in the table below.

Any results displayed as less than (<) are below the detection limit of the accredited third-party laboratory.

Parameter	Sample Date	Result Value	MAC* Limit	Unit of Measure	Exceedance
Alachlor	Aug 12	< 0.50	5	ug/L	No
Atrazine + N-dealkylated metabolites	Aug 12	< 1.0	5	ug/L	No
Azinphos-methyl	Aug 12	< 2.0	20	ug/L	No
Benzene	Aug 12	< 0.10	1	ug/L	No
Benzo(a)pyrene	Aug 12	< 0.0050	0.01	ug/L	No
Bromoxynil	Aug 12	< 0.50	5	ug/L	No
Carbaryl	Aug 12	< 5.0	90	ug/L	No
Carbofuran	Aug 12	< 5.0	90	ug/L	No
Carbon Tetrachloride	Aug 12	< 0.10	2	ug/L	No
Chlorpyrifos (Dursban)	Aug 12	< 1.0	90	ug/L	No
Diazinon	Aug 12	< 1.0	20	ug/L	No
Dicamba	Aug 12	< 1.0	120	ug/L	No
1,2-Dichlorobenzene	Aug 12	< 0.20	200	ug/L	No
1,4-Dichlorobenzene	Aug 12	< 0.20	5	ug/L	No
1,2-Dichloroethane	Aug 12	< 0.20	5	ug/L	No
1,1-Dichloroethylene (vinylidene chloride)	Aug 12	< 0.10	14	ug/L	No
Dichloromethane	Aug 12	< 0.50	50	ug/L	No
2,4-Dichlorophenol	Aug 12	< 0.25	900	ug/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	Aug 12	< 1.0	100	ug/L	No
Diclofop-methyl	Aug 12	< 0.90	9	ug/L	No
Dimethoate	Aug 12	< 2.5	20	ug/L	No
Diquat	Aug 12	< 7.0	70	ug/L	No
Diuron	Aug 12	< 10	150	ug/L	No
Ethylbenzene	Aug 12	< 0.10	140	ug/L	No
Glyphosate	Aug 12	< 10	280	ug/L	No
Malathion	Aug 12	< 5.0	190	ug/L	No
2 Methyl-4-chlorophenoxyacetic acid (MCPA)	Aug 12	< 10	100	ug/L	No
Metolachlor	Aug 12	< 0.50	50	ug/L	No
Metribuzin (Sencor)	Aug 12	< 5.0	80	ug/L	No
Monochlorobenzene	Aug 12	< 0.10	80	ug/L	No

Paraquat	Aug 12	< 1.0	10	ug/L	No
Pentachlorophenol	Aug 12	< 0.50	60	ug/L	No
Phorate	Aug 12	< 0.50	2	ug/L	No
Picloram	Aug 12	< 5.0	190	ug/L	No
Polychlorinated Biphenyls (PCB)	Aug 12	< 0.05	3	ug/L	No
Prometryne	Aug 12	< 0.25	1	ug/L	No
Simazine	Aug 12	< 1.0	10	ug/L	No
Terbufos	Aug 12	< 0.50	1	ug/L	No
Tetrachloroethylene	Aug 12	< 0.10	10	ug/L	No
2,3,4,6-Tetrachlorophenol	Aug 12	< 0.50	100	ug/L	No
Toluene	Aug 12	< 0.20	60	ug/L	No
Triallate	Aug 12	< 1.0	230	ug/L	No
Trichloroethylene	Aug 12	< 0.10	5	ug/L	No
2,4,6-Trichlorophenol	Aug 12	< 0.50	5	ug/L	No
Trifluralin	Aug 12	< 1.0	45	ug/L	No
Vinyl Chloride	Aug 12	< 0.20	1	ug/L	No
Xylenes	Aug 12	< 0.10	90	ug/L	No

* MAC: Maximum Acceptable Concentration

As per Schedule 13 of Regulation 170/03, The Wheatley Drinking Water System is required to ensure that at least one distribution sample is taken in each calendar quarter, from a point in the drinking water system's distribution system, or plumbing that is connected to the drinking water system, that is likely to have an elevated potential for the formation of Trihalomethanes (THMs). The results of THM sampling shall be monitored and expressed as a running annual average of quarterly results.

Parameter	Sample Location	Sample Date	Result Value	RAA Value	MAC* Limit	Unit of Measure	Exceedance
THMs	Coatsworth Road	Feb 18	18.8	34.8	100	ug/L	No
	Mint Line	Feb 18	28.9				
	Coatsworth Road	May 13	21.1	33.4			No
	Mint Line	May 13	31.7				
	Coatsworth Road	Aug 11	42.0	35.2			No
	Mint Line	Aug 11	66.0				
	Coatsworth Road	Nov 17	28.3	34.9			No
	Mint Line	Nov 17	42.2				

* MAC: Maximum Acceptable Concentration

As per Schedule 13 of Regulation 170/03, the Wheatley Drinking Water System is required to ensure that at least one distribution sample is taken in each calendar quarter, from a point in the drinking water system's distribution system or plumbing that is connected to the drinking water system, that is likely to have an elevated potential for the formation of haloacetic acids (HAAs). The results of HAA sampling shall be monitored and expressed as a running annual average of the quarterly results.

Parameter	Sample Date	Result Value	RAA Value	MAC* Limit	Unit of Measure	Exceedance
HAAs	Feb 18	14.0	23.8	80	ug/L	No
	May 13	22.0	24.5			No
	Aug 11	33.0	23.8			No
	Nov 17	23.0	23.0			No

* MAC: Maximum Acceptable Concentration

4.4. Summary of Lead analysis during this reporting period:

As per Schedule 15.1 of Regulation 170/03, the Wheatley Drinking Water System qualifies for reduced lead sampling. A minimum of 4 distribution samples must be taken and tested for lead during each of the following periods in the relevant 12-month period:

1. The period from December 15 to April 15.
2. The period from June 15 to October 15.

Any results displayed as less than (<) are below the detection limit of the accredited third-party laboratory.

Location Type	Number of Samples	Range of Lead Results (min #) - (max #)	MAC* Limit	Unit of Measure	Number of Exceedances / Adverses
Residential	0		10	ug/L	
Non-Residential	0				
Distribution	26	< 0.50 – 1.80			0

* MAC: Maximum Acceptable Concentration

4.5. List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards.

As per Schedule 13-5 of Regulation 170/03, if a test result for any of the inorganic or organic parameters listed in Schedule 23/24 exceeds half of the standard prescribed for the parameter in Schedule 2 to the Ontario Drinking Water Quality Standards, the frequency of sampling and testing for that parameter under that section shall be increased so that at least one water sample is taken and tested every three months.

Parameter	Sample Date	Result Value	Half MAC* Limit	Unit of Measure	Exceedance
<i>None during the reporting period</i>					

* MAC: Maximum Acceptable Concentration

4.6. Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order or other legal instrument.

In accordance with Schedule C of the Municipal Drinking Water License, water discharged into the natural environment from the Wheatley Drinking Water System must be tested at a monthly frequency for Total Suspended Solids, and Total Chlorine Residual.

Parameter	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Residuals Management: Total Suspended Solids (mg/L)	-	-	-	-	-	-	-	-	-	-	-	27
Annual Average Concentration: 27 mg/L Annual Average Concentration Limit: 25 mg/L												
Residuals Management: Total Chlorine Residual (mg/L)	-	-	-	-	-	-	-	-	-	-	-	0.15
Annual Average Concentration: 0.15 mg/L Annual Average Concentration Limit: 0.02 mg/L Maximum Concentration Limit: 0.10 mg/L												

In accordance with Schedule C of the Municipal Drinking Water License for the Public Utilities Commission for the Municipality of Chatham-Kent, the requirements set out in the Ministry document titled "Harmful Algal Bloom Guide for Owners and Operators of Municipal Residential Drinking Water Systems" must be met. This includes proactive weekly sampling when visual observation alone is not sufficient to identify a bloom or when Harmful Algal Blooms have historically occurred in the source water for the system.

Any results displayed as less than (<) are below the detection limit of the accredited third-party laboratory.

Parameter	Sample Date	Result Value – Raw Water	Result Value – Treated Water	MAC* Limit	Unit of Measure	Exceedance
Microcystin (ELISA analysis)	May 26	< 0.150	< 0.150	1.5	ug/L	No
	Jun 02	< 0.150	< 0.150			No
	Jun 09	< 0.150	< 0.150			No
	Jun 16	< 0.150	< 0.150			No
	Jun 23	< 0.150	< 0.150			No
	Jul 02	< 0.150	< 0.150			No
	Jul 07	< 0.150	< 0.150			No
	Jul 14	< 0.150	< 0.150			No
	Jul 21	< 0.150	< 0.150			No
	Jul 28	< 0.150	< 0.150			No
	Aug 05	< 0.150	< 0.150			No
	Aug 11	< 0.150	< 0.150			No
	Aug 18	< 0.150	< 0.150			No
	Aug 25	< 0.150	< 0.150			No
	Sep 02	< 0.150	< 0.150			No
	Sep 08	< 0.150	< 0.150			No
	Sep 15	0.386	< 0.150			No
	Sep 22	0.206	< 0.150			No
	Sep 29	0.194	< 0.150			No
	Oct 06	< 0.150	< 0.150			No
	Oct 14	< 0.150	< 0.150			No
	Oct 20	< 0.150	< 0.150			No
	Oct 27	< 0.150	< 0.150			No

* MAC: Maximum Acceptable Concentration

4.7. Summary of additional voluntary sampling and testing during the reporting period or the most recent sample results.

Any results displayed as less than (<) are below the detection limit of the accredited third-party laboratory.

Parameter	Sample Date	Result Value	MAC* Limit	Unit of Measure	Exceedance
Alkalinity	Nov 17	120	-	mg/L	-
Aluminum	Nov 17	< 4.9	-	ug/L	-
Colour	Nov	< 2	-	TCU	-
Hardness	Nov 17	120	-	mg/L	-
Perfluoroalkyl Substances (PFAS)	Aug 11	All results below the Summary of Guidelines for Canadian Drinking Water Quality (SGCDWQ), Health Canada	-	ng/L	-

* MAC: Maximum Acceptable Concentration

5. ADVERSE WATER QUALITY INCIDENTS

An adverse drinking water condition is identified by a test result or an observed event that that water may not be safe for consumption and/or detrimental to public health.

Adverse water quality indicators may be as a result of adverse test results that exceed the Ontario Drinking Water Quality Standards. Additional indicators of adverse water quality may be, but not limited to, inadequate filtration or disinfection, low distribution system pressure, evident or suspected contamination of the water system.

Depending on the severity of the adverse water quality indicator, the local Medical Officer of Health / Public Health Unit may issue a water advisory, such as a Boil Water Advisory or Do Not Drink Advisory.

Adverse water quality incidents require timely reporting to the local Medical Officer of Health / Public Health Unit and the Spills Action Centre (SAC) of the Ministry of the Environment, Conservation and Parks (MECP).

Adverse Water Quality Incidents			
AWQI #: 168454		Type: Microbiological	
Parameter: Total Coliforms (TC) in a Distribution Sample			
Result(s): 1 cfu / 100 mL		Limit: 0 cfu / 100 mL	
Date Issued: 2025 Jun 04		Date Resolved: 2025 Jun 06	
Details of Adverse: Total coliform cfu / 100 mL greater than the 0. Reg. 169/03 Microbiological Standards in a drinking water sample.			
Sample Location: 3647 Wheeler Line, Tilbury			
Sample Date: June 2, 2025			
Sample Time: 16:10			
Free Chlorine Residual: 1.81 mg/L			
Total Chlorine Residual: 1.98 mg/L			
The sample that gave rise to the adverse was part of the corrective actions for AWQI # 168434, which consisted of a boil water advisory issued following low pressure experienced in a section of the distribution system during a watermain break and repair. The other 2 locations sampled on June 2, 2025, taken as part of the corrective action received satisfactory results, 0 TC and 0 EC.			
Actions Taken & Results Achieved: Distribution system flushing, sampling and testing.			
Sample & Test Results:			
Jun 3	Free CL2 mg/L	TC cfu / 100 mL	EC cfu / 100 mL
Location			
Corner of Wheeler Ln & Queens Ln, Tilbury	1.61	0	0
3647 Wheeler Line, Tilbury	1.62	0	0
On Route, 401 West, Tilbury	1.38	0	0
Jun 4	Free CL2 mg/L	TC cfu / 100 mL	EC cfu / 100 mL
Location			
Corner of Wheeler Ln & Queens Ln, Tilbury	1.50	0	0
3647 Wheeler Line, Tilbury	1.36	0	0
On Route, 401 West, Tilbury	1.45	0	0

Boil Water Advisories			
AWQI #: 168434		Type: Operational	
Parameter: Distribution System Pressure			
Result(s): < 20 psi		Objective: 20 psi	
Date Issued: 2025 Jun 02		Date Rescinded: 2025 Jun 06	
Details of Boil Water Advisory: Pressure loss in a section of the distribution system in the community of Tilbury.			
A watermain break along Wheeler Line, Tilbury resulted in reduction or loss of pressure in a section of the distribution system. Due to the pressure loss and potential for introduction of contaminants, a boil water advisory was issued by the Chatham-Kent Public Health Unit.			
Affected Area: Sections of Wheeler Line, Queen’s Line and the 401 ON Routes. The boil water advisory affected roughly 28 service connections in the Tilbury area, including a mix of residential and commercial properties.			
Actions Taken & Results Achieved: Distribution system flushing, sampling and testing.			
Sample & Test Results:			
Jun 2	Free CL2 mg/L	TC cfu / 100 mL	EC cfu / 100 mL
Location			
Corner of Wheeler Ln & Queens Ln, Tilbury	1.47	0	0
3647 Wheeler Line, Tilbury	1.81	1	0
On Route, 401 West, Tilbury	1.32	0	0
Jun 3	Free CL2 mg/L	TC cfu / 100 mL	EC cfu / 100 mL
Location			
Corner of Wheeler Ln & Queens Ln, Tilbury	1.61	0	0
3647 Wheeler Line, Tilbury	1.62	0	0
On Route, 401 West, Tilbury	1.38	0	0
Jun 4	Free CL2 mg/L	TC cfu / 100 mL	EC cfu / 100 mL
Location			
Corner of Wheeler Ln & Queens Ln, Tilbury	1.50	0	0
3647 Wheeler Line, Tilbury	1.36	0	0
On Route, 401 West, Tilbury	1.45	0	0

6. NON-COMPLIANCES

Failure to meet the standards outlined in provincial regulations, such as those set by the Safe Drinking Water Act, 2002, may result in non-compliance of such regulatory requirements. Additionally, failure to meet the requirements and conditions of the Municipal Drinking Water Licence and Drinking Water Works Permit may also result in a non-compliance.

Depending on the severity of the non-compliance, a non-compliance may affect the drinking water systems inspection rating, investigated with potential for charges/fines and provincial officers' orders issued all at the discretion of the Ministry of the Environment, Conservation and Parks (MECP).

Non-Compliances
Type: Non-Compliance of the Municipal Drinking Water License - Residuals Management
Parameter: Residuals Management Total Chlorine Residual Concentration - Single Sample Result
Date(s) / Period: 2025 Dec 29
Finding(s): 0.15 mg/L (Single Sample Total Chlorine Residual)
Criteria / Limit: 0.1 mg/L (Total Chlorine Residual Maximum Acceptable Concentration)
Details: The requirement to sample and test for total chlorine residual of the Residuals Management, with limits of the concentration of total chlorine residual discharged to the environment, was not a requirement in previous Municipal Drinking Water Licences for the Chatham-Kent Drinking Water Systems and was introduced in Licence Issue Number 8, August 25, 2025. The existing sanitary sewer collection system does not have the capacity to receive and transmit large volumes of backwash waste, therefore the storm sewer collection system is utilized to discharge a portion of the backwash waste to the environment at the Wheatley Harbour. The Wheatley Water Treatment Plant was not designed with process(es) to remove / reduce the total chlorine residual concentrations in the discharge to the storm sewer collection system and ultimately to the environment at the Wheatley Harbour.
Action(s) Taken: The Chatham-Kent PUC is considering submitting an Application for Fragmentation or Relief from Regulatory Requirements Drinking Water Systems to the MECP, for consideration of regulatory relief from MDWL requirements of the total chlorine residual concentrations discharged to the environment, until such time that process(es) may be evaluated and potentially alterations required to reduce the total chlorine residual concentrations discharged to the environment.

Type: Non-Compliance of the Municipal Drinking Water License - Residuals Management
Parameter: Residuals Management Total Chlorine Residual Concentration - Annual Average
Date(s) / Period: January - December 2025
Finding(s): 0.15 mg/L (Total Chlorine Residual Annual Average Concentration)
Criteria / Limit: 0.02 mg/L (Total Chlorine Residual Annual Average Concentration)
Details: The requirement to sample and test for total chlorine residual of the Residuals Management, with limits of the concentration of total chlorine residual discharged to the environment, was not a requirement in previous Municipal Drinking Water Licences for the Chatham-Kent Drinking Water Systems and was introduced in Licence Issue Number 8, August 25, 2025. The existing sanitary sewer collection system does not have the capacity to receive and transmit large volumes of backwash waste, therefore the storm sewer collection system is utilized to discharge a portion of the backwash waste to the environment at the Wheatley Harbour. The Wheatley Water Treatment Plant was not designed with process(es) to remove / reduce the total chlorine residual concentrations in the discharge to the storm sewer collection system and ultimately to the environment at the Wheatley Harbour. Additionally, since the Wheatley Water Treatment Plant returned to operations on December 15th, only one monthly total chlorine residual concentration sampling and analysis was conducted for the month of December 2025, representative of the annual average concentration for 2025. Action(s) Taken: The Chatham-Kent PUC is considering submitting an Application for Fragmentation or Relief from Regulatory Requirements Drinking Water Systems to the MECP, for consideration of regulatory relief from MDWL requirements of the total chlorine residual concentrations discharged to the environment, until such time that process(es) may be evaluated and potentially alterations required to reduce the total chlorine residual concentrations discharged to the environment.

Type: Non-Compliance of the Municipal Drinking Water License - Residuals Management
Parameter: Residuals Management Total Suspended Solids Concentration - Annual Average
Date(s) / Period: January - December 2025
Finding(s): 27 mg/L (Total Suspended Solids Annual Average Concentration)
Criteria / Limit: 25 mg/L (Total Suspended Solids Annual Average Concentration)
Details: In December 2025, staff conducted the total chlorine residual concentration sampling and analysis from the storm sewer collection system at the closest accessible location to the Point of Discharge into the Wheatley Harbour, just West of 2436 Deer Run Road, Wheatley. This was an attempt to determine the total chlorine residual close to the Point of Discharge, rather than discharge from the filter wastewater storage tank(s) themselves, which previously has been the typical sampling location for total suspended solids concentrations discharged to the storm sewer collection system.

Staff also conducted the total suspended solids concentration sampling at the same sample location, Point of Discharge into the Wheatley Harbour. It is suspected that due to the sampling location at the Wheatley Harbour, the analysis results have increased total suspended solids concentrations from the storm sewer collection system itself, not representative of the concentration discharged from the filter wastewater storage tank(s).

Additionally, since the Wheatley Water Treatment Plant returned to operations on December 15th, only one monthly total suspended solids concentration sampling and analysis was conducted for the month of December 2025, representative of the annual average concentration for 2025.

Action(s) Taken: In future monthly total suspended solids concentration sampling and analysis, the sampling location will be returned to the former sampling location at the discharge from the filter wastewater storage tank(s) for more representative results of the discharge to the environment, rather than potential introduction from the storm sewer collection system.

7. NON-CONFORMANCES

Not undertaking or consideration of drinking water system best management practices may result in a non-conformance of such practices. Best management practices are not mandatory or a regulatory requirement for implementation, but rather a recommendation by the Ministry of the Environment, Conservation and Parks (MECP), to improve the drinking water system or quality management system.

Non-Conformances
<i>None during the reporting period</i>
Type:
Parameter:
Date(s) / Period:
Finding(s):
Recommendation / Objective:
Action(s) Taken:

8. SPILL OF A POLLUTANT / DISCHARGE OF A CONTAMINANT

Spills of a pollutant or discharges of a contaminant to the natural environment which has or may have an adverse effect on or impairment of the natural environment. The requirements monitoring, reporting, remediation of spills and containment discharges are set out in the Environmental Protection Act, R.S.O. 1990 and the Municipal Drinking Water Licence.

Spills of a pollutant or discharges of a contaminant require timely reporting to the local Medical Officer of Health / Public Health Unit and the Spills Action Centre (SAC) of the Ministry of the Environment, Conservation and Parks (MECP).

Spills of a Pollutant / Discharge or a Contaminant	
<i>None during the reporting period</i>	
Incident #:	Spill / Contaminant Material:
Beginning Date:	Beginning Time:
End Date:	End Time:
Duration:	Volume:
Source of Spill:	
Location of Spill:	
Cause of Spill:	
Action(s) Taken:	