Ontario **Drinking-Water Systems Regulation O. Reg. 170/03**

ANNUAL REPORT

Drinking-Water System Number:	**260002551**
Drinking-Water System Name:	Bothwell Distribution System
Drinking-Water System Owner:	Municipality of Chatham-Kent
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1 - December 31, 2024

Does your Drinking-Water System serve more than 10,000 people? Yes [ ] No [X]

Is your annual report available to the public at no charge on a web site on the Internet? Yes [X] No [ ]

Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.

Chatham-Kent PUC Office
325 Grand Ave E
Box 1191
Chatham, ON
N7M 5L8

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

Drinking Water System Name	Drinking Water System Number
None	

Did you provide a copy of your annual report to all Drinking-Water System owners that are connected to you and to whom you provide all its drinking water?
Yes [ ] No [ ]

Indicate how you notified system users that your annual report is available and is free of charge.

- **[X] Public access/notice via the web**
- **[X] Public access/notice via Government Office**
- **[ ] Public access/notice via a newspaper**
- **[X] Public access/notice via Public Request**
- **[X] Public access/notice via a Public Library**
- **[ ] Public access/notice via other method _____**

Describe your Drinking-Water System

The Bothwell Distribution System receives treated water from the Southwest Middlesex Drinking Water Distribution System.

The source of the raw water is Lake Erie. The water supply system consists of the West Elgin Water Treatment Plant located south of the settlement of Eagle along the Lake Erie shoreline in the Municipality of West Elgin.

Water is transported from the West Lorne to Newbury, Glencoe, Bothwell, Melbourne, and rural areas by the Glencoe pipeline. A pumping station at Glencoe reservoir pumps directly to Mosa Township, Newbury, and the Bothwell Elevated Tank.

Water is stored in the Bothwell Elevated Tank to supply the Bothwell Distribution System.

List all water treatment chemicals used over this reporting period

1. Sodium Hypochlorite

Were any significant expenses incurred to?

[X] Install required equipment
[ ] Repair required equipment
[ ] Replace required equipment

Please provide a brief description and a breakdown of monetary expenses incurred

Expense	Cost ($)
Laboratory Analysis	11,486
Standby / Emergency Generator and Electrical Upgrades	7,500
Sodium Hypochlorite	5,767

Provide details on 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 Spills Action Centre

Incident Date & AWQI No.	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
None					

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

	Number of Samples	Range of E. coli Or Fecal Results (min #)- (max #)	Range of Total Coliform Results (min #)- (max #)	Number of HPC Samples	Range of HPC Results (min #)- (max #)
Tower Inlet	53	0 – 0	0 – 0	50	< 10 – 10
Distribution	316	0 – 0	0 – 0	304	< 10 – 40

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

	Number of Grab Samples	Range of Results (min #)- (max #)
Turbidity	Not Applicable	
Chlorine (Distribution @ Elevated Tank Discharge)	8760	0.40 – 1.52
Fluoride	Not Applicable	

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

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

Date of legal instrument issued	Parameter	Date Sampled	Result	Unit of Measure
None				

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

** The following parameters are sampled by the donor system.	Sample Date	Result Value	MAC Limit	Unit of Measure	Exceedance
Antimony			6	ug/L	
Arsenic			10	ug/L	
Barium			1000	ug/L	
Boron			5000	ug/L	
Cadmium			5	ug/L	
Chromium			50	ug/L	
***Lead**	See Schedule 15.1 Summary				
Mercury			0.001	mg/L	
Selenium			50	ug/L	
Sodium			20	mg/L	
Uranium			20	ug/L	
Fluoride			1.5	mg/L	
Nitrite			1	mg/L	
Nitrate			10	mg/L	
Nitrite + Nitrate			-	mg/L	

Summary of lead testing under Schedule 15.1 during this reporting period

Location Type	Number of Samples	Range of Lead Results ug/L (min#) – (max #)	MAC Limit ug/L	Number of Exceedances / Adverse
Residential	0			
Non-Residential	0			
Distribution	4	< 0.50 - < 0.50	10	0

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

** The following parameters are sampled by the donor system with the exception of HAAs and THMs.	Sample Date	Result Value	MAC Limit	Unit of Measure	Exceedance
Alachlor			5	ug/L	
Atrazine + N-dealkylated metabolites			5	ug/L	
Azinphos-methyl			20	ug/L	
Benzene			1	ug/L	
Benzo(a)pyrene			0.01	ug/L	
Bromoxynil			5	ug/L	
Carbaryl			90	ug/L	
Carbofuran			90	ug/L	
Carbon Tetrachloride			2	ug/L	
Chlorpyrifos (Dursban)			90	ug/L	
Diazinon			20	ug/L	
Dicamba			120	ug/L	
1,2-Dichlorobenzene			200	ug/L	
1,4-Dichlorobenzene			5	ug/L	
1,2-Dichloroethane			5	ug/L	
1,1-Dichloroethylene (vinylidene chloride)			14	ug/L	
Dichloromethane			50	ug/L	
2-4 Dichlorophenol			900	ug/L	
2,4-Dichlorophenoxy acetic acid (2,4-D)			100	ug/L	
Diclofop-methyl			9	ug/L	
Dimethoate			20	ug/L	
Diquat			70	ug/L	
Diuron			150	ug/L	
Ethylbenzene			140	ug/L	
Glyphosate			280	ug/L	
Haloacetic Acids (HAA) **Running Annual Average:**	Jan 15 Apr 15 Jul 15 Oct 7	25 33 39 58 39	80	ug/L	None
Malathion			190	ug/L	
2 Methyl-4-chlorophenoxyacetic acid (MCPA)			100	ug/L	
Metolachlor			190	ug/L	
Metribuzin (Sencor)			80	ug/L	
Monochlorobenzene			80	ug/L	
Paraquat			10	ug/L	
Pentachlorophenol			60	ug/L	
Phorate			2	ug/L	
Picloram			190	ug/L	
Polychlorinated Biphenyls (PCB)			3	ug/L	

Prometryne			1	ug/L	
Simazine			10	ug/L	
Terbufos			1	ug/L	
Tetrachloroethylene			10	ug/L	
2,3,4,6-Tetrachlorophenol			100	ug/L	
Trihalomethanes (THM) **Running Annual Average:**	Jan 15 Apr 15 Jul 15 Oct 7	55 49 69 119 73	100	ug/L	None
Toluene			60	ug/L	
Triallate			230	ug/L	
Trichloroethylene			5	ug/L	
2,4,6-Trichlorophenol			5	ug/L	
Trifluralin			45	ug/L	
Vinyl Chloride			1	ug/L	
Xylenes			90	ug/L	

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

Parameter	Result Value	Unit of Measure	Date of Sample
THM	73	ug/L	Running Annual Average

Summary of additional voluntary sampling and testing during this reporting period.

Parameter	Sample Date	Result: Distribution	Unit of Measure
None			