COBOURG DRINKING WATER SYSTEM 2024 ANNUAL REPORT

Drinking Water System Number:	**220000825**
Drinking Water System Name:	Cobourg Drinking Water System
Drinking Water System Owner:	Corporation of the Town of Cobourg
Drinking Water System Category:	Large Municipal Residential
Period being reported:	January 1, 2024 to December 31, 2024

Complete if your Category is Large Municipal Residential or Small Municipal Residential

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

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.

Lakefront Utility Services Inc.
Office
207 Division Street,
Cobourg, Ontario

https://www.lakefrontutilities.com/regulatory-water/

Complete for all other Categories

Number of Designated Facilities served:

Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [ ] No [ ]

Number of Interested Authorities you report to:

Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [ ] No [ ]

***Note*: For the following tables below, additional rows or columns may be added, or an appendix may be attached to the report**

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

Drinking Water System Name	Drinking Water System Number
Hamilton Township Distribution System	260039208

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 drinking water? Yes [x] 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
[ ] Public access/notice via a Public Library
[ ] Public access/notice via other method_____

Describe your Drinking Water System

The Cobourg Water Treatment Plant (WTP) takes water from Lake Ontario through an 860m-long intake pipe. Raw water is pre-chlorinated for zebra-mussel control before it enters a full conventional treatment process. The treatment process includes coagulation, flocculation, sedimentation, and filtration. Aluminum sulphate is used as the coagulation agent, with an addition of Flowpam AN 934 PWG (polymer) to aid in the process. Primary disinfection is achieved with gaseous chlorine after water undergoes an appropriate contact time, after which the water is stored in a 6240 m^3 in-ground reservoir, from where it is then pumped to the distribution system. The distribution system consists of two pressure zones, with an elevated water storage tank in each of the zones. The WTP supplies water to the Zone 1 tower, with a holding capacity of 1332 m^3. The booster station, located at the boundary of the two zones, supplies water to the Zone 2 tower, with a holding capacity of 3734 m^3. Zone 1 tower, Zone 2 tower and the booster station are all equipped with sodium hypochlorite and rechlorination equipment to maintain proper chlorine residuals. Water from the Cobourg DWS is conveyed to Hamilton Township, as an extension of the Cobourg DWS, agreed upon in writing.

List all water treatment chemicals used over this reporting period

Aluminum Sulphate
Polymer – Flopam AN 934 PWG
Chlorine
Sodium Hypochlorite

Were any significant expenses incurred to?

[x] Install required equipment
[x] Repair required equipment
[x] Replace required equipment

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

PROJECT	ESTIMATED COST
Highlift Discharge Chlorine Analyzer Replacement	$8,487
Raw Water Inspection	$2,651
Zone 1 Elevated Tank and Booster Pumping Station	$7,892,650
Tower and Booster Pumping Station Project Management	$458,230
Linear Infrastructure Zone 1 Elevated Tank and Zone 2 Booster	$527,270
PLC Upgrade – Strathy and Booster	$87,824
Rankin Blvd/Green St/Furnace St Watermain Replacement	$29,165
Harden St Watermain Replacement	$37,584
Hydrant Coding – Flow Testing	$11,155
Boggs Road – Watermain Installation	$172,700
West St Watermain Replacement	$447,054
6th Street Watermain Replacement	$151,880
Water Meter Replacement	$246,015
Water System (Buildings) Asset Management Plan	$72,166
PLC Upgrade HMI's – Strathy, WTP/Ewart Booster	$40,000
Tools	$30,013
IT Hardware and Software	$6,544

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	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
There were no Adverse Water Quality Incidents during the reporting period					

Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03, during this reporting period

	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	53	0 - 0	0 - 153	-	-
Treated	53	0	0	53	0 – 1
Distribution	424	0	0	265	0 - 18

Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03 during the period covered by this Annual Report.

	Number of Grab Samples	Range of Results (min #)-(max #)	Unit of Measure
Turbidity	8760	0.013 – 0.129	NTU
Chlorine	8760	0.79 – 1.82	mg/L
Fluoride (If the DWS provides fluoridation)	NA		

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
June 8, 2021	Suspended Solids	Yearly Average	2.5	mg/L
	Total Chlorine Residual	Yearly Average	0.014	mg/L

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	08-Jan-2024	0.6 < MDL	ug/L	No
Arsenic	08-Jan-2024	0.2	ug/L	No
Barium	08-Jan-2024	20.9	ug/L	No
Boron	08-Jan-2024	17	ug/L	No
Cadmium	08-Jan-2024	0.004	ug/L	No
Chromium	08-Jan-2024	0.28	ug/L	No
Mercury	08-Jan-2024	0.01 < MDL	ug/L	No
Selenium	08-Jan-2024	0.12	ug/L	No
Sodium	15-Apr-2024	14.6	mg/L	No
Uranium	08-Jan-2024	0.038	ug/L	No
Fluoride	15-Apr-2024	0.06	mg/L	No
Nitrite	15-Oct-2024	0.003 < MDL	mg/L	No
Nitrate	15-Oct-2024	0.329	mg/L	No

Summary of lead testing under Schedule 15.1 during this reporting period
(applicable to the following drinking water systems; large municipal residential systems**,** small municipal residential systems, and non-municipal year-round residential systems)

Location Type	Number of Samples	Range of Lead Results (min#) – (max #)	Unit of Measure	Number of Exceedances
Plumbing	Not required, plumbing exemption and only pH and Alkalinity required in distribution samples			
Distribution	8	Lead (0.01<MDL-0.03 ug/L, pH (6.61-7.07), Alkalinity (77-100 mg/L)		

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	08-Jan-2024	0.02<MDL	ug/L	No
Atrazine + N-dealkylated metabolites	08-Jan-2024	0.02	ug/L	No
Azinphos-methyl	08-Jan-2024	0.05<MDL	ug/L	No
Benzene	08-Jan-2024	0.32<MDL	ug/L	No
Benzo(a)pyrene	08-Jan-2024	0.004<MDL	ug/L	No
Bromoxynil	08-Jan-2024	0.33<MDL	ug/L	No
Carbaryl	08-Jan-2024	0.05<MDL	ug/L	No
Carbofuran	08-Jan-2024	0.01<MDL	ug/L	No
Carbon tetrachloride	08-Jan-2024	0.17<MDL	ug/L	No
Chlorpyrifos	08-Jan-2024	0.02<MDL	ug/L	No
Diazinon	08-Jan-2024	0.02<MDL	ug/L	No
Dicamba	08-Jan-2024	0.2<MDL	ug/L	No
1,2-Dichlorobenzene	08-Jan-2024	0.41<MDL	ug/L	No
1,4-Dichlorobenzene	08-Jan-2024	0.36<MDL	ug/L	No
1,2-Dichloroethane	08-Jan-2024	0.35<MDL	ug/L	No
1,1-Dichloroethylene (vinylidene chloride)	08-Jan-2024	0.33<MDL	ug/L	No
Dichloromethane	08-Jan-2024	0.35<MDL	ug/L	No
2,4-dichlorophenol	08-Jan-2024	0.15<MDL	ug/L	No
2,4-dichlorophenoxyacetic acid (2,4-D)	08-Jan-2024	0.19<MDL	ug/L	No
Diclofop-methyl	08-Jan-2024	0.4<MDL	ug/L	No
Dimethoate	08-Jan-2024	0.06<MDL	ug/L	No
Diquat	08-Jan-2024	1<MDL	ug/L	No
Diuron	08-Jan-2024	0.03<MDL	ug/L	No
Glyphosate	08-Jan-2024	1<MDL	ug/L	No
Malathion	08-Jan-2024	0.02<MDL	ug/L	No
MCPA	08-Jan-2024	0.00012<MDL	mg/L	No
Metolachlor	08-Jan-2024	0.01<MDL	ug/L	No
Metribuzin	08-Jan-2024	0.02<MDL	ug/L	No
Monochlorobenzene	08-Jan-2024	0.3<MDL	ug/L	No
Paraquat	08-Jan-2024	1<MDL	ug/L	No
Pentachlorophenol	08-Jan-2024	0.15<MDL	ug/L	No
Phorate	08-Jan-2024	0.01<MDL	ug/L	No
Picloram	08-Jan-2024	1<MDL	ug/L	No
Polychlorinated Biphenyls (PCBs) Total	08-Jan-2024	0.04<MDL	ug/L	No
Prometryne	08-Jan-2024	0.03<MDL	ug/L	No
Simazine	08-Jan-2024	0.01<MDL	ug/L	No
Terbufos	08-Jan-2024	0.01<MDL	ug/L	No
Tetrachloroethylene (perchloroethylene)	08-Jan-2024	0.35<MDL	ug/L	No
2,3,4,6-tetrachlorophenol	08-Jan-2024	0.2<MDL	ug/L	No
Triallate	08-Jan-2024	0.01<MDL	ug/L	No

Trichloroethylene	08-Jan-2024	0.44<MDL	ug/L	No
2,4,6-trichlorophenol	08-Jan-2024	0.25<MDL	ug/L	No
Trifluralin	08-Jan-2024	0.02<MDL	ug/L	No
Vinyl Chloride	08-Jan-2024	0.17<MDL	ug/L	No
HAAs (show latest running annual average**)**	15-Oct-2024	5.3<MDL	ug/L	No
THMs (show latest running annual average**)**	15-Oct-2024	31.8	ug/L	No

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
No parameters exceeded half the standard			