



COLBORNE DRINKING WATER SYSTEM 2021 ANNUAL REPORT FOR WATER WORKS (R.170/03, Sec.11)

Drinking-Water System Number:	220000790
Drinking-Water System Name:	Colborne Drinking Water System
Drinking-Water System Owner:	Corporation of The Township of Cramahe
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1, 2021 to July 31, 2021

<p><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></p> <p>Does your Drinking-Water System serve more than 10,000 people? Yes [] No [X]</p> <p>Is your annual report available to the public at no charge on a web site on the Internet? Yes [X] No []</p> <p>Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>Lakefront Utility Services Inc. Office 207 Division St., Cobourg Ontario</p> <p>https://www.lakefrontutilities.on.ca/regulatory/water/</p> </div>	<p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served: <input style="width: 100px; height: 20px;" type="text"/></p> <p>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [] No []</p> <p>Number of Interested Authorities you report to: <input style="width: 100px; height: 20px;" type="text"/></p> <p>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [] No []</p>
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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
N/A	N/A

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 of its drinking water?
Yes [] No []



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

- Public access/notice via the web
- Public access/notice via Government Office
- Public access/notice via a newspaper
- 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 Colborne Well Supply delivers water to approximately 2000 residents. Water is taken from 2 wells located at the water plant on Purdy Road. The water is disinfected with sodium hypochlorite, and sodium silicate is added to sequester iron. After meeting the required contact time, the treated water reaches the distribution system, satisfying consumer demand and refilling the water tower located at the top end of the system north of Hwy. 401. A pressure sensor at the water tower determines the tower’s water level and turns the well pumps on and off as required.

List all water treatment chemicals used over this reporting period

Sodium Hypochlorite
Sodium Silicate

Were any significant expenses incurred to?

- Install required equipment
- Repair required equipment
- Replace required equipment

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

PROJECT	ESTIMATED COST
New High Lift Pump	\$10,200.00
High Lift Pump Repairs	\$7,000.00
SCADA Upgrade	\$9,000.00
	\$26,200.00

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 #1 – Jun 23, 2020

On June 23, 2020 it was observed that there was virtually no water being supplied to a water meter at 13580 County Rd 2. LUSI checked the neighboring houses (13574 and 13590 County Rd 2) and they also had no water supply. When moderate pressure was restored to the system there was chlorine residual present, however, the Haliburton, Kawartha, Pine Ridge Public Health Unit issued a Boil Water Order (BWO). The BWO was issued to 13548, 13574, 13580, and 13590 County Rd 2 residences. Additionally, the BWO requires that all necessary repairs be completed on or before July 31, 2020.

An extension to the BWO was provided on November 26, 2020, the extension requires that all necessary repairs be completed on or before March 31, 2021.

A new watermain was installed on County Rd 2, servicing several residences including the four affected residences in the initial AWQI report. The commissioning of the watermain was completed and bacteriological samples were collected on February 9, 2021, and February 10, 2021. The watermain commissioning package, including the bacteriological samples, was provided to HKPR District Health Unit on February 19, 2021, and the boil water advisory was rescinded.

The boil water rescinds notices were provided to the affected residences on February 25, 2021.

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 Or Fecal Results (min #)-(max #)	Range of Total Coliform Results (min #)-(max #)	Number of HPC Samples	Range of HPC Results (min #)-(max #)
Raw	60	0 - 0	0 - 0	N/A	N/A
Treated	30	0 - 0	0 - 0	30	0 - 1
Distribution	90	0 - 0	0 - 0	90	0 - 1

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 #)
Turbidity (Treated)	7	0.07 – 0.40 NTU
Turbidity (Raw)	7	0.28 – 4.02 NTU
Chlorine	8760	0.000191– 4.9 mg/L



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
N/A				

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

Note: These samples are required once every three years for the Colborne Water System. Sodium and Fluoride are sampled every 5 years.

Parameter	Result Value	Standard	Unit of Measure	Exceedance	Sample Date
Antimony	0.09 < MDL	6	ug/l	NO	13-Jan-2020
Arsenic	0.5	25	ug/l	NO	13-Jan-2020
Barium	141	1000	ug/l	NO	13-Jan-2020
Boron	7	5000	ug/l	NO	13-Jan-2020
Cadmium	0.007	5	ug/l	NO	13-Jan-2020
Chromium	0.09	50	ug/l	NO	13-Jan-2020
Mercury	0.01 < MDL	1	ug/l	NO	13-Jan-2020
Selenium	0.06	10	ug/l	NO	13-Jan-2020
Uranium	4.09	20	ug/l	NO	13-Jan-2020
Nitrite	<0.003	1.0	mg/l	NO	12-Jul-2021
Nitrate	1.8	10	mg/l	NO	12-Jul-2021
Sodium	6.87	20.0	mg/l	NO	16-Sep-2019
Fluoride	0.09	1.5	mg/l	NO	16-Sep-2019

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 #)	Number of Exceedances
Distribution	2	0.01 <MDL - 0.02 ug/L	0



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

Note: These samples are required once every three years for the Colborne Water System. They are due to be sampled again in 2022.

Parameter	Sample Date	Result Value	Standard	Unit of Measure	Exceedance
Benzene [ug/L]	13-Jan-2020	0.32 <MDL	5	ug/l	NO
Carbon tetrachloride [ug/L]	13-Jan-2020	0.16 <MDL	5	ug/l	NO
2-Dichlorobenzene [ug/L]	13-Jan-2020	0.41 <MDL	200	ug/l	NO
4-Dichlorobenzene [ug/L]	13-Jan-2020	0.36 <MDL	5	ug/l	NO
1-Dichloroethylene (vinylidene chloride) [ug/L]	13-Jan-2020	0.33 <MDL	14	ug/l	NO
2-Dichloroethane [ug/L]	13-Jan-2020	0.35 <MDL	5	ug/l	NO
Dichloromethane [ug/L]	13-Jan-2020	0.35 <MDL	50	ug/l	NO
Monochlorobenzene [ug/L]	13-Jan-2020	0.3 <MDL	80	ug/l	NO
Tetrachloroethylene (perchloroethylene) [ug/L]	13-Jan-2020	0.35 <MDL	30	ug/l	NO
Trichloroethylene [ug/L]	13-Jan-2020	0.44 <MDL	5	ug/l	NO
Vinyl Chloride [ug/L]	13-Jan-2020	0.17 <MDL	2	ug/l	NO
Diquat [ug/L]	13-Jan-2020	1 <MDL	70	ug/l	NO
Paraquat [ug/L]	13-Jan-2020	1 <MDL	10	ug/l	NO
Glyphosate [ug/L]	13-Jan-2020	1 <MDL	280	ug/l	NO
Polychlorinated Biphenyls (PCBs) - Total [ug/L]	13-Jan-2020	0.04 <MDL	3	ug/l	NO
Benzo(a)pyrene [ug/L]	13-Jan-2020	0.004 <MDL	0.01	ug/l	NO
Alachlor [ug/L]	13-Jan-2020	0.02 <MDL	5	ug/l	NO
Atrazine + N-dealkylated metabolites [ug/L]	13-Jan-2020	0.02 <MDL	5	ug/l	NO
Atrazine [ug/L]	13-Jan-2020	0.01 <MDL	-	ug/l	NO
Desethyl atrazine [ug/L]	13-Jan-2020	0.01 <MDL	-	ug/l	NO
Azinphos-methyl [ug/L]	13-Jan-2020	0.05 <MDL	20	ug/l	NO
Carbaryl [ug/L]	13-Jan-2020	0.05 <MDL	90	ug/l	NO
Carbofuran [ug/L]	13-Jan-2020	0.01 <MDL	90	ug/l	NO
Chlorpyrifos [ug/L]	13-Jan-2020	0.02 <MDL	90	ug/l	NO
Diazinon [ug/L]	13-Jan-2020	0.02 <MDL	20	ug/l	NO
Dimethoate [ug/L]	13-Jan-2020	0.03 <MDL	20	ug/l	NO
Diuron [ug/L]	13-Jan-2020	0.03 <MDL	150	ug/l	NO
Malathion [ug/L]	13-Jan-2020	0.02 <MDL	190	ug/l	NO
Metolachlor [ug/L]	13-Jan-2020	0.01 <MDL	50	ug/l	NO
Metribuzin [ug/L]	13-Jan-2020	0.02 <MDL	80	ug/l	NO
Phorate [ug/L]	13-Jan-2020	0.01 <MDL	2	ug/l	NO
Prometryne [ug/L]	13-Jan-2020	0.03 <MDL	1	ug/l	NO
Simazine [ug/L]	13-Jan-2020	0.01 <MDL	10	ug/l	NO
Terbufos [ug/L]	13-Jan-2020	0.01 <MDL	1	ug/l	NO
Triallate [ug/L]	13-Jan-2020	0.01 <MDL	230	ug/l	NO
Trifluralin [ug/L]	13-Jan-2020	0.02 <MDL	45	ug/l	NO
4-dichlorophenoxyacetic acid (24-D) [ug/L]	13-Jan-2020	0.19 <MDL	100	ug/l	NO
Bromoxynil [ug/L]	13-Jan-2020	0.33 <MDL	5	ug/l	NO
Dicamba [ug/L]	13-Jan-2020	0.20 <MDL	120	ug/l	NO
Diclofop-methyl [ug/L]	13-Jan-2020	0.40 <MDL	9	ug/l	NO
MCPA [mg/L]	13-Jan-2020	0.00012 <MDL	-	ug/l	NO
Picloram [ug/L]	13-Jan-2020	1 <MDL	190	ug/l	NO
4-dichlorophenol [ug/L]	13-Jan-2020	0.15 <MDL	900	ug/l	NO



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

6-trichlorophenol [ug/L]	13-Jan-2020	0.25 <MDL	5	ug/l	NO
6-tetrachlorophenol [ug/L]	13-Jan-2020	0.20 <MDL	100	ug/l	NO
Pentachlorophenol [ug/L]	13-Jan-2020	0.15 <MDL	60	ug/l	NO
THM: Annual Average	12-Jul-2021	4.20	100	ug/l	NO
HAA: Annual Average	12-Jul-2021	5.3 <MDL	80	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
N/A			