



**OPTIONAL ANNUAL REPORT TEMPLATE**

<b>Drinking-Water System Number:</b>	<b>260001458</b>
<b>Drinking-Water System Name:</b>	Kitchener Distribution System
<b>Drinking-Water System Owner:</b>	City of Kitchener
<b>Drinking-Water System Category:</b>	Distribution
<b>Period being reported:</b>	January 1 to December 31, 2020

**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.**

Kitchener Operations Facility  
131 Goodrich Drive, Kitchener

**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 of their drinking water from your system:**

<b>Drinking Water System Name</b>	<b>Drinking Water System Number</b>
Breslau (Elroy Acres) Distribution System	260022152
City of Waterloo Distribution System	260002473

**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 [X] 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 City of Kitchener owns, operates and maintains the distribution system and all associated appurtenances (valves, hydrants, etc.) that supply water to the residents of Kitchener. The distribution system receives its supply from the Region of Waterloo pumping and treatment centres including Mannheim Water Treatment Plant, Mannheim Reservoir, Greenbrook, Strange Street Pumping Station (currently out of service) and Parkway Pumping Station

**List all water treatment chemicals used over this reporting period**

N/A – See Region of Waterloo

**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**

N/A – See Region of Waterloo

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



**Table 1 – Adverse Water Quality Incident Summary –  
January 1 to December 31, 2020**

#	Adverse Type	AWQI Date (verbal)	AWQI #	Site Name	Site Location
1	Self imposed BWA	March 6	149713	Hearth Cres & Hahn Place	45 Units
2	Self imposed BWA	March 18	149762	7 Pipers Green Crt	1 Unit
3	Low chlorine	April 17	149884	Hydrant 10864	513 Beckview Cres
4	High sodium	May 8	149957	KID 116	19 Forest Creek Dr
5	Low chlorine	May 11	149961	Hydrant 11185	Otterbein & Lackner
6	High sodium	May 12	149969	KID 116	19 Forest Creek Dr
7	Total coliform	May 26	150049	Mill St Temporary main	509 Mill
8	Low chlorine	June 1	150093	64 Hearth	
9	Total coliform	June 9	150190	Mill St Temporary main	509 Mill
10	Low chlorine	June 11	150217	Hydrant 11185	Otterbein & Lackner
11	Low chlorine	June 12	150236	Hydrant 10123	Tarter and Beckview
12	Low chlorine	June 15	150254	Hydrant 1432	479 Lancaster St
13	Total coliform	July 8	150554	Coral Cres Temporary main	SP1 -42 Coral
14	Total coliform	July 9	150593	Coral Cres Temporary main	SP1-42 Coral
15	Total coliform	July 10	150608	Coral Cres Temporary main	SP1 – 42 Coral
16	Total coliform Self imposed BWA	July 11	150614	Coral Cres Temporary main	SP1 – 42 Coral
17	Total coliform	July 12	150620	Coral Cres Temporary main	SP1 - 42 Coral
18	Low chlorine	July 10	150599	Hydrant 10864	513 Beckview Cres
19	Low chlorine	July 13	150623	Hydrant 11176	945 Dunnigan Crt
20	Total coliform	July 15	150678	Hydrant 1903	296 Victoria ST S
21	Self Imposed BWA	July 15	150682	131 Brookside Cres	1 service
22	Total coliform	July 16	150761	Hebel Place Temporary watermain	2A-A 15 Hebel
23	Total coliform	July 22	150853	Ephraim Temporary watermain	1-03 616 Frederick St
24	Low chlorine	July 23	150912	108 Hearst Cres	
25	Total coliform	July 30	151023	Florence Temporary watermain	130 Florence
26	Total coliform	Aug 11	151312	Perth Rd Temporary watermain	75 Perth
27	Total coliform	Aug 11	151331	Perth Rd Temporary watermain	32 Perth
28	Low chlorine	Aug 12	151340	Hydrant 8465	280 Tallgrass Cres
29	Total coliform present	Aug 25	151549	Perth Rd Temporary watermain	32 Perth
30	Total coliform present	Aug 28	151638	Hebel PI Temporary watermain	2A-2 15 Hebel PI



31	Total coliform present	Aug 28	151643	Hebel PI Temporary watermain	2A-3 72 Hebel
32	Low chlorine	Sept 14	152017	KID 78	660 Belmont Ave W
33	Self-Imposed BWA	Sept 19	152120	40 Sheldon Ave N	1 unit
34	Self-Imposed BWA	Sept 24	152214	82 Heiman St	1 unit
35	Total coliform present	Sept 29	152314	Heiman St Temporary watermain	SP-2B 209 Heiman St
36	Total coliform present	Oct 8	152503	Huber St Temporary watermain	SP1-02 159 Huber St
37	Total coliform present	Oct 8	152508	Edwin St Temporary watermain	SP3 96 Edwin
38	Total coliform present	Oct 9	152524	Huber St Temporary watermain	SP1-03 159 Huber St
39	Total coliform present	Oct 9	152525	Huber St Temporary watermain	SP1-02 160 Huber St
40	Total coliform present	Oct 20	152642	Stirling Ave S Temporary watermain	SP-3 659 Stirling Ave S
41	Low Chlorine	Nov 5	152855	Hydrant 10964	Weber and Louisa
42	Low chlorine	Nov 16	152980	Hydrant 11185	Otterbein and Lackner

**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 #)
<b>Raw</b>					
<b>Treated</b>					
<b>Distribution</b>	2253*	0/Absent – 0/Absent	0/Absent - Present/11CFU /100mL	625	0 - >500CFU/mL

\*number of samples completed by the laboratory for routine sampling and temporary watermains. Samples taken from newly commissioned watermains are not included

**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
<b>Turbidity</b>			
<b>Chlorine</b>	4418Total*	0.01-2.20	mg/L
	4418Free*	0.0-1.33	mg/L

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



<b>Fluoride</b> (If the DWS provides fluoridation)			
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\*includes samples taken by the laboratory for routine sampling, temporary water mains, dead end main flushing, autoflushers, main break/valve replacements, water quality investigations and watermain cleaning. Samples taken for newly commissioned water mains are not included.

**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

**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				
Arsenic				
Barium				
Boron				
Cadmium				
Chromium				
*Lead				
Mercury				
Selenium				
Sodium	May 8, 2020	141	mg/L	yes
Uranium				
Fluoride				
Nitrite				
Nitrate				

\*only for drinking water systems testing under Schedule 15.2; this includes large municipal non-residential systems, small municipal non-residential systems, non-municipal seasonal residential systems, large non-municipal non-residential systems, and small non-municipal non-residential systems

**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	118	<0.200 – 7.50	ug/L	0 exceedances
Distribution	20	<0.200 – 5.95	ug/L	0 exceedances

**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				
Aldicarb				
Aldrin + Dieldrin				
Atrazine + N-dealkylated metabolites				
Azinphos-methyl				
Bendiocarb				
Benzene				
Benzo(a)pyrene				
Bromoxynil				
Carbaryl				
Carbofuran				
Carbon Tetrachloride				
Chlordane (Total)				
Chlorpyrifos				
Cyanazine				
Diazinon				
Dicamba				
1,2-Dichlorobenzene				
1,4-Dichlorobenzene				
Dichlorodiphenyltrichloroethane (DDT) + metabolites				
1,2-Dichloroethane				
1,1-Dichloroethylene (vinylidene chloride)				
Dichloromethane				
2,4 Dichlorophenol				
2,4-Dichlorophenoxy acetic acid (2,4-D)				
Diclofop-methyl				
Dimethoate				
Dinoseb				
Diquat				
Diuron				
Glyphosate				
Heptachlor + Heptachlor Epoxide				
Lindane (Total)				
Malathion				
Methoxychlor				
Metolachlor				
Metribuzin				
Monochlorobenzene				
Paraquat				
Parathion				
Pentachlorophenol				



Phorate				
Picloram				
Polychlorinated Biphenyls(PCB)				
Prometryne				
Simazine				
THM (NOTE: show latest annual average)		17.35	µg/L	no
Temephos				
Terbufos				
Tetrachloroethylene				
2,3,4,6-Tetrachlorophenol				
Triallate				
Trichloroethylene				
2,4,6-Trichlorophenol				
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)				
Trifluralin				
Vinyl Chloride				

**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