



OPTIONAL ANNUAL REPORT TEMPLATE

Drinking-Water System Number:	260001458
Drinking-Water System Name:	Kitchener Distribution System
Drinking-Water System Owner:	City of Kitchener
Drinking-Water System Category:	Distribution
Period being reported:	January 1 to December 31, 2019

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:

Drinking Water System Name	Drinking Water System Number
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 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, 2019**

Number	Adverse Type	Adverse Date	AWQI #	Site Name	Site Location
1	Lead	Feb 7	144756	Hydrant 402	528 Wellington St W
2	Lead	Feb 11	144774	Hydrant 402	528 Wellington St W
3	Low chlorine	Jun 22	145795	Hydrant 10083	Strasburg & Robert Ferrie
4	Total coliform	Jun 26	145969	Temp main	S 59 Sandra Ave
5	Total coliform	July 5	146150	Temp main	S3 Lot 203 Franklin St N
6	Low chlorine	July 10	146263	Hydrant 4411	1516 Glasgow St
7	Total coliform	July 22	146653	Temp main	S2 191 Franklin St
8	Self Imposed BWA	July 24	146733	86-212 Boniface Ave & 17 & 117 Massey Ave	86-212 Boniface Ave & 17 & 117 Massey Ave
9	Low chlorine	July 31	146954	Hydrant 10066	530 Caryndale Drive
10	Total coliform	Aug 7	147142	Temp main	Adelaide St SP AT3
11	Total coliform	Aug 8	147203	Temp main	Adelaide St AT2
12	Total coliform	Aug 9	147208	Temp main	Adelaide St AT1
13	Total coliform	Aug 14	147315	Temp main	Third Ave S6
14	Total coliform	Aug 28	147667	Temp main	Third Ave S7
15	Low chlorine	Sep 9	147907	Hydrant 10123	Tartan Ave & Beckview Dr
16	Total coliform	Sep 11	147994	Temp main	Third Ave S7
17	Total coliform	Sep 16	148099	Temp main	Centreville St
18	Total coliform	Sep 25	148237	Temp main	Third Ave S4
19	Total coliform	Sep 30	148319	Temp main	Third Ave S4
20	Total coliform	Sep 30	148322	Temp main	Third Ave S7
21	Total coliform	Oct 1	148355	Temp main	Third Ave S4
22	Self Imposed BWA	Oct 5	148423	300 Fischer-Hallman Rd	300 Fischer-Hallman Rd
23	Low chlorine	Oct 31	148824	KID122	Cedarview bulk water fill station – near 2260 Shirley Dr
24	Low chlorine	Nov 12	148978	KID78	660 Belmont Ave W
25	Low chlorine	Nov 15	149011	Hydrant 2533	43 Crestview Pl
26	Low chlorine	Nov 25	149095	KID78	660 Belmont Ave W

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					



Treated					
Distribution	2214*	0/Absent –0(0 CFU/100ml)	0/Absent-Present (1 CFU/100ml)	675	0 - >500CFU/100m L

*number of samples completed by the laboratory for routine sampling and temporary water mains. Samples taken from newly commissioned water mains 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
Turbidity			
Chlorine	3773Total*	0.01-1.95	mg/L
	3773Free*	0.00-1.33	mg/L
Fluoride (If the DWS provides fluoridation)			

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

*includes samples taken by the laboratory for routine sampling, temporary water mains, dead end main flushing, autoflushers, main break/valve replacements and waterman cleaning. Samples taken for newly commissioned water mains and water quality investigations 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				
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	224	<0.200 - 14.5	ug/L	7 exceedances – (two locations had both samples exceed)
Distribution	23	0.200 – 28.3	ug/L	2 exceedances (same location)

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)		21.0	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