



2022 Annual Report for Niagara-on-the-Lake Drinking Water System

Drinking-Water System Number:	260001380
Drinking-Water System Name:	Niagara-on-the-Lake Distribution System
Drinking-Water System Owner:	Town of Niagara-on-the-Lake
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1 – December 31, 2022

<p><b><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></b></p> <p>Does your Drinking-Water System serve more than 10,000 people? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Is your annual report available to the public at no charge on a web site on the Internet? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></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;">       Town of Niagara-on-the-Lake        Public Works Department        3 Lorraine Street        Virgil, Ontario        L0S 1T0     </div>	<p><b><u>Complete for all other Categories.</u></b></p> <p>Number of Designated Facilities served:  <div style="border: 1px solid black; padding: 2px; display: inline-block;">N/A</div> </p> <p>Did you provide a copy of your annual report to all Designated Facilities you serve?        Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/> </p> <p>Number of Interested Authorities you report to:  <div style="border: 1px solid black; padding: 2px; display: inline-block;">N/A</div> </p> <p>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility?        Yes <input type="checkbox"/> No <input type="checkbox"/> NA <input checked="" type="checkbox"/> </p>
--	---

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 – not applicable	N/A – not applicable

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  NA

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 Region of Niagara at its DeCew (St. Catharines) and Niagara Falls water treatment plants produce water for the Town of Niagara-on-the-Lake. The Treated water is carried by a series of transmission mains and storage facilities to the Town. In turn, water is distributed to approximately 7500 customers in Niagara-on-the-Lake by approximately 201 km of Town distribution mains. There are approximately 1410 fire hydrants and 1383 valves in the distribution systems.

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

N/A – This is a distribution system only. Information on the treatment of water supply would need to be obtained from the Region of Niagara.

**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**

Approximately 1,915 m of water main was replaced in all of Niagara-on-the-Lake’s water distribution system, including Bevan Heights, at a cost of approximately \$2,175,000 in 2022.

**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
June 23, 2022	Total Coliforms	11	Count/100 ml	Flush/resample	July 4, 2022
June 24, 2022	Total Coliforms	30	Count/100 ml	Flush/resample	July 4, 2022
June 25, 2022	Total Coliforms	1	Count/100 ml	Flush/resample	July 4, 2022
June 26,	Total Coliforms	1	Count/100	Flush/resample	July 4, 2022



2022			ml		
September 22, 2022	Total Coliforms	24	Count/100 ml	Flush/resample	September 26, 2022

**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	493	0-0	0-30	493	0-350

**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	<i>NOTE: For continuous monitors use 8760 as the number of samples.</i>
Turbidity				
Chlorine	929	0.12 – 1.45	Mg/l	
Fluoride (If the DWS provides fluoridation)				

**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	0*	N/A	N/A	N/A
Distribution	0	N/A	N/A	N/A

\* This drinking water system met the requirements of subsection 15.1-5(9) of schedule 15.1 of O. Reg. 170/03 and was not required to test for lead in plumbing in 2022.

**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				
HAA (NOTE: show latest annual average)	2022	15.6	µg/L	0
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)	2022	33.9	µg/L	0
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