



2018 Annual Report for Niagara-on-the-Lake Drinking Water System

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|--|---|
| 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, 2018 |

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|---|---|
| <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 <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;"> <p>Town of Niagara-on-the-Lake Public Works Department 3 Lorraine Street Virgil, Ontario LOS 1T0</p> </div> | <p><u>Complete for all other Categories.</u></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 7000 customers in Niagara-on-the-Lake by approximately 200 km of Town distribution mains. There are approximately 1386 fire hydrants and 1358 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

1,900 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 \$1,650,000 in 2018.

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 |
|---------------|-----------|--------|-----------------|-------------------|------------------------|
| | | | | | |

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

| | Number of | Range of E.Coli Or Fecal | Range of Total Coliform | Number of HPC | Range of HPC Results |
|--|-----------|--------------------------|-------------------------|---------------|----------------------|
| | | | | | |



| | Samples | Results (min #)-(max #) | Results (min #)-(max #) | Samples | (min #)-(max #) |
|---------------------|---------|----------------------------|----------------------------|---------|-----------------|
| Raw | | | | | |
| Treated | | | | | |
| Distribution | 436 | 0-0 | 0-0 | 436 | 0-150 |

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 | 873 | 0.10 – 1.21 | 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 | 8 | 0-0.00157 | Mg/l | 0 |

* 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 2018.

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) | 2018 | 15.2 | 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) | 2018 | 33.5 | 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 |
|-----------|--------------|-----------------|----------------|
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