

## Annual Reports

Copies of the annual reports must be available to the public free of charge according to O.Reg 170/03. Copies are available at the Public Works building at 3 Lorraine Street in Virgil. These reports are accessible on the Town's Website.

### 2011 Annual Report for Niagara-on-the-Lake Drinking Water System

|  |   |
|--|---|
| <b>Drinking-Water System Number:</b>   | 260001380                               |
| <b>Drinking-Water System Name:</b>     | Niagara-on-the-Lake Distribution System |
| <b>Drinking-Water System Owner:</b>    | Town of Niagara-on-the-Lake             |
| <b>Drinking-Water System Category:</b> | Large Municipal Residential             |
| <b>Period being reported:</b>          | January 1 – December 31, 2011           |

**Complete if your Category is Large Municipal Residential or Small Municipal Residential**

Does your Drinking-Water System serve more than 10,000 people? Yes  No

Is your annual report available to the public at no charge on a web site on the Internet?

Yes  No

Town of Niagara-on-the-Lake  
Public Works Department  
3 Lorraine Street  
Virgil, Ontario  
L0S 1T0

**Complete for all other Categories.**

Number of Designated Facilities served:

NA

Did you provide a copy of your annual report to all Designated Facilities you serve?

Yes  No  NA

Number of Interested Authorities you report to:

NA

Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility?

Yes  No  NA

**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 |
|----------------------------|------------------------------|
| 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 Falls and Niagara Falls water treatment plants produce treated 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 5658 customers in Niagara-on-the-Lake via more than 188 km of Town distribution mains. There are approximately 1177 fire hydrants and 1144 valves on 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**

The cost for maintenance, operation, administration and water procurement for all of Niagara-on-the-Lake's water distribution system, including Bevan Heights, was approximately \$3,100,000 in 2011. Capital costs for the replacement of approximately 1,275 m of watermains was \$720,000 in 2011.

**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 |
|---------------|----------------|--------|-----------------|-------------------|------------------------|
| 01/19/2011    | Total Coliform | 1      | cfu/100 ml      | Resample/Retest   | 01/20/2011             |
| 05/17/2011    | Total Coliform | 4      | cfu/100 ml      | Resample/Retest   | 05/20/2011             |
| 09/06/2011    | Free Chlorine  | 0.03   | Mg/L            | Flush & Resample  | 09/06/2011             |
| 10/11/2011    | Free Chlorine  | 0.04   | Mg/L            | Flush & Resample  | 10/11/2011             |
| 10/31/2011    | Free Chlorine  | 0.02   | Mg/L            | Flush & Resample  | 10/31/2011             |
| 12/08/2011    | Free Chlorine  | 0.00   | Mg/L            | Flush & Resample  | 12/08/2011             |

**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 | 487               | 0  | 0-4   | 487                   | 0-91                                 |

**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                                   |                        |                                  |
| Chlorine                                    | 1004                   | 0.0-1.55                         |
| Fluoride (If the DWS provides fluoridation) |                        |                                  |

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

**NOTE:** Record the unit of measure if it is **not** milligrams per litre.

**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 #) | Number of Exceedances |
|---------------|-------------------|--|-----------------------|
| Plumbing      | 0*                | NA                                     | NA                    |
| Distribution  | 0*                | NA                                     | NA                    |

*\*This Drinking Water System has met the requirements of Subsection 15.1 – 5(9) of Schedule 15.1 of O. Reg 170/03 and therefore was not required to test for lead in 2011.*

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

| <b>Parameter</b>                                    | <b>Sample Date</b> | <b>Result Value</b> | <b>Unit of Measure</b> | <b>Exceedance</b> |
|---|--------------------|---------------------|------------------------|-------------------|
| 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  |                    |                     |                        |                   |

|  |  |      |      |    |
|--|--|------|------|----|
| <b>Parathion</b>                                       |  |      |      |    |
| <b>Pentachlorophenol</b>                               |  |      |      |    |
| <b>Phorate</b>   |  |      |      |    |
| <b>Picloram</b>  |  |      |      |    |
| <b>Polychlorinated Biphenyls(PCB)</b>                  |  |      |      |    |
| <b>Prometryne</b>                                      |  |      |      |    |
| <b>Simazine</b>  |  |      |      |    |
| <b>THM</b><br>(NOTE: show latest annual average)       | March 8,<br>June 17,<br>Sept 8 &<br>Dec 8,<br>2011 | 26.3 | µg/L | NA |
| <b>Temephos</b>  |  |      |      |    |
| <b>Terbufos</b>  |  |      |      |    |
| <b>Tetrachloroethylene</b>                             |  |      |      |    |
| <b>2,3,4,6-Tetrachlorophenol</b>                       |  |      |      |    |
| <b>Triallate</b>                                       |  |      |      |    |
| <b>Trichloroethylene</b>                               |  |      |      |    |
| <b>2,4,6-Trichlorophenol</b>                           |  |      |      |    |
| <b>2,4,5-Trichlorophenoxy acetic acid</b><br>(2,4,5-T) |  |      |      |    |
| <b>Trifluralin</b>                                     |  |      |      |    |
| <b>Vinyl Chloride</b>                                  |  |      |      |    |

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