



OPTIONAL ANNUAL REPORT TEMPLATE

|                                 |   |
|---------------------------------|---|
| Drinking-Water System Number:   | 260007088                                     |
| Drinking-Water System Name:     | Minto Pines Subdivision Drinking Water System |
| Drinking-Water System Owner:    | Town of Minto                                 |
| Drinking-Water System Category: | Small Municipal Residential                   |
| Period being reported:          | January 1, 2017 to December 31, 2017          |

|  |   |
|--|---|
| <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 [ ] No [ <input checked="" 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 [ ]</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 Minto<br/>5941 Hwy #89<br/>R.R. #1<br/>Harriston, ON<br/>NOG 1Z0</p> </div> | <p><b><u>Complete for all other Categories.</u></b></p> <p>Number of Designated Facilities served: <input type="text" value="N/A"/></p> <p>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [ ] No [ ]</p> <p>Number of Interested Authorities you report to: <input type="text" value="N/A"/></p> <p>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [ ] No [ ]</p> |
|--|---|

Note: For the following tables below, additional rows or columns may be added or an appendix may be attached to the report

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 [  ]



Indicate how you notified system users that your annual report is available, and is free of charge.

- Public access/notice via the web Town of Minto Website
- Public access/notice via Government Office
- Public access/notice via a newspaper Advertisements in Local Newspapers
- Public access/notice via Public Request
- Public access/notice via a Public Library
- Public access/notice via other method Tax Letter

**Describe your Drinking-Water System**

This Drinking-Water System supplies drinking water to 34 residential estate lots within the Minto Pines Subdivision.

There is one (1) well, equipped with a submersible pump. In the pumphouse, the raw water supply is injected with 12% sodium hypochlorite for disinfection. The treated water leaves the pumphouse and enters an underground contact pipe and is discharged into the distribution system after adequate contact time is achieved. In the event of a power outage, the pumphouse is equipped with automatic back-up power supply.

The well is controlled (*start/stop*) automatically based pressures in the distribution system. The pumphouse is equipped with alarms for chlorination system failure (*and corresponding lockout of well pumps*), low-pressure level and intrusion. The pumphouse has continuous monitoring analyzers for pre and post chlorine disinfection.

A SCADA System provides monitoring and data collection. The SCADA System continuously monitors pre and post contact pipe “free” chlorine residuals and flows. This data is transmitted to the Harriston shop where “off site” information is available for monitoring and data collection purposes.

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

- 12% Sodium Hypochlorite (*disinfectant*)

**Were any significant expenses incurred to?**

- Install required equipment
- Repair required equipment
- Replace required equipment



# Ontario Drinking-Water Systems Regulation O. Reg. 170/03

Please provide a brief description and a breakdown of monetary expenses incurred

To meet the requirements of O. Reg. 170/03, upgrades, installations and replacement of various system components have been completed. However, maintaining the system includes repair and replacement of individual components as required.

In 2017 \$19,500 was spent on routine maintenance and inspection.

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 |
|---------------|---|--------|-----------------|--|------------------------|
| 19/09/2017    | Well Maintenance precautionary boil water in effect | N/A    | N/A             | Boil Water lifted 23/09/2017 after 2 sets of good bacti samples. | 23/09/2017             |

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

|              | Number of Samples | Range of Total Coliform Results (min #)-(max #) | Range of E-Coli Or Fecal Results (min #)-(max #) | Range of HPC Results (min #)-(max #) | Number of HPC Samples |
|--------------|-------------------|---|--|--------------------------------------|-----------------------|
| Raw          | 51                | 0 - 0   | 0 - 0  | < 10 - TNTC                          | N/A                   |
| Treated      | N/A               | N/A   | N/A  | N/A                                  | N/A                   |
| Distribution | 51                | 0 - 0   | 0 - 0  | <10 - 100                            | 51                    |

Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03 during the period covered by this Annual Report.

| Operational Testing  |              | Number of Grab Samples | Range of Results (min #)-(max #) |
|--|--------------|------------------------|----------------------------------|
| Turbidity  | Raw          | 102                    | 0.10 – 0.97                      |
| Chlorine   | Treated      | 367                    | 1.01 – 1.52                      |
|  | Distribution | 261                    | 0.69 – 1.32                      |
| Fluoride (If the DWS provides fluoridation)                                |              | N/A                    | N/A                              |
| <b>NOTE: Record the unit of measure if it is not milligrams per litre.</b> |              |                        |                                  |

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 |
|---------------------------------|-----------|--------------|--------|-----------------|
| N/A                             | N/A       | N/A          | N/A    | N/A             |

### Minto Pines Well #1

Summary of Inorganic parameters tested during this reporting period or the most recent sample results

| Parameter | Sample Date | Result Value | Unit of Measure | ODWS Criteria |
|-----------|-------------|--------------|-----------------|---------------|
| Antimony  | 09/05/17    | <0.6         | (ug/L)          | 6             |
| Arsenic   | 09/05/17    | <1.0         | (ug/L)          | 25            |
| Barium    | 09/05/17    | 37           | (ug/L)          | 1000          |
| Boron     | 09/05/17    | <50          | (ug/L)          | 5000          |
| Cadmium   | 09/05/17    | <0.1         | (ug/L)          | 5             |
| Chromium  | 09/05/17    | <1.0         | (ug/L)          | 50            |
| *Lead     |             |              | (ug/L)          | 100           |
| Mercury   | 09/05/17    | <0.1         | (ug/L)          | 1             |
| Selenium  | 09/05/17    | <5.0         | (ug/L)          | 10            |
| Sodium    | 09/05/17    | 16.8         | (mg/L)          | 20            |
| Uranium   | 09/05/17    | <5.0         | (ug/L)          | 20            |
| Fluoride  | 09/05/17    | <0.1         | (mg/L)          | 1.5           |
| Nitrite   | 06/02/17    | <0.01        | (mg/L)          | 1             |
|           | 09/05/17    | <0.01        |                 |               |
|           | 24/08/17    | <0.01        |                 |               |
|           | 20/11/17    | <0.01        |                 |               |



| Parameter | Sample Date | Result Value | Unit of Measure | ODWS Criteria |
|-----------|-------------|--------------|-----------------|---------------|
| Nitrate   | 06/02/17    | 1.11         | (mg/L)          | 10            |
|           | 09/05/17    | 1.04         |                 |               |
|           | 24/08/17    | 0.993        |                 |               |
|           | 20/11/17    | 0.962        |                 |               |

\*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      | 10                | <1.0 – < 1.0 ug/L                      | 0                     |
| Distribution  | 2                 | <1.0 – <1.0 ug/L                       | N/A                   |

\* These results are from samples taken in December 2013 – April 2014 and June - October 2014.  
No adverse results were identified.

**Reduced Sampling**

Town of Minto is now exempt from plumbing sampling for lead due to less than 10% of plumbing results exceeded 10 ug/L.

Distribution sampling is still required every “winter” and “summer” period.

- each year for pH and alkalinity
- once every 3 years for lead

**2017 Lead Results**

|                   | Sample Date | Number of Samples | Max Result | Limit  |
|-------------------|-------------|-------------------|------------|--------|
| Winter Alkalinity | 10/01/17    | 1                 | 335        | 30-500 |
| Winter Lead       | 10/01/17    | 1                 | 3.2        | 10     |
| Summer Alkalinity | 11/07/17    | 1                 | 254        | 30-500 |
| Summer Lead       | 11/07/17    | 1                 | < 1.0      | 10     |

**Minto Pines Well #1**

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

| Parameter                                  | Sample Date | Result Value | Unit of Measure | ODWS Criteria |
|--|-------------|--------------|-----------------|---------------|
| Alachlor                                   | 09/05/17    | <0.10        | (ug/L)          | 5             |
| alpha-Chlordane                            | 09/05/17    | <0.10        | (ug/L)          |               |
| Aroclor 1242                               | 09/05/17    | <0.02        | (ug/L)          |               |
| Aroclor 1254                               | 09/05/17    | <0.02        | (ug/L)          |               |
| Aroclor 1260                               | 09/05/17    | <0.02        | (ug/L)          |               |
| Atrazine                                   | 09/05/17    | <0.10        | (ug/L)          |               |
| Atrazine Desethyl                          | 09/05/17    | <0.10        | (ug/L)          |               |
| Atrazine & Metabolites                     | 09/05/17    | <0.20        | (ug/L)          | 5             |
| Azinphos-methyl                            | 09/05/17    | <0.10        | (ug/L)          | 20            |
| Benzene                                    | 09/05/17    | <0.50        | (ug/L)          | 5             |
| Benzo(a)pyrene                             | 09/05/17    | <0.01        | (ug/L)          | 0.01          |
| Bromoxynil                                 | 09/05/17    | <0.20        | (ug/L)          | 5             |
| Carbaryl                                   | 09/05/17    | <0.20        | (ug/L)          | 90            |
| Carbofuran                                 | 09/05/17    | <0.20        | (ug/L)          | 90            |
| Carbon Tetrachloride                       | 09/05/17    | <0.20        | (ug/L)          | 5             |
| Chlorpyrifos                               | 09/05/17    | <0.10        | (ug/L)          | 90            |
| Diazinon                                   | 09/05/17    | <0.10        | (ug/L)          | 20            |
| Dicamba                                    | 09/05/17    | <0.2         | (ug/L)          | 120           |
| 1,2-Dichlorobenzene                        | 09/05/17    | <0.5         | (ug/L)          | 200           |
| 1,4-Dichlorobenzene                        | 09/05/17    | <0.5         | (ug/L)          | 5             |
| 1,2-Dichloroethane                         | 09/05/17    | <0.5         | (ug/L)          | 5             |
| 1,1-Dichloroethylene (vinylidene chloride) | 09/05/17    | <0.5         | (ug/L)          | 14            |
| Dichloromethane                            | 09/05/17    | <5.0         | (ug/L)          | 50            |
| 2-4 Dichlorophenol                         | 09/05/17    | <0.30        | (ug/L)          | 900           |
| 2,4-Dichlorophenoxy acetic acid (2,4-D)    | 09/05/17    | <0.2         | (ug/L)          | 100           |
| Diclofop-methyl                            | 09/05/17    | <0.20        | (ug/L)          | 9             |
| Dimethoate                                 | 09/05/17    | <0.10        | (ug/L)          | 20            |
| Diquat                                     | 09/05/17    | <1.0         | (ug/L)          | 70            |
| Diuron                                     | 09/05/17    | <1.0         | (ug/L)          | 150           |
| gamma-Chlordane                            | 09/05/17    | <0.1         | (ug/L)          |               |
| Glyphosate                                 | 09/05/17    | <5.0         | (ug/L)          | 280           |
| Malathion                                  | 09/05/17    | <0.10        | (ug/L)          | 190           |
| MCPA                                       | 09/05/17    | <0.20        | (ug/L)          | 100           |
| Metolachlor                                | 09/05/17    | <0.10        | (ug/L)          | 50            |
| Metribuzin                                 | 09/05/17    | <0.10        | (ug/L)          | 80            |

| Parameter                               | Sample Date | Result Value | Unit of Measure | ODWS Criteria |
|---|-------------|--------------|-----------------|---------------|
| Monochlorobenzene                       | 09/05/17    | <0.50        | (ug/L)          | 80            |
| o,p-DDT                                 | 09/05/17    | <0.10        | (ug/L)          |               |
| Oxychlorodane                           | 09/05/17    | <0.10        | (ug/L)          |               |
| p,p-DDD                                 | 09/05/17    | <0.10        | (ug/L)          |               |
| p,p-DDE                                 | 09/05/17    | <0.10        | (ug/L)          |               |
| p,p-DDT                                 | 09/05/17    | <0.1         | (ug/L)          |               |
| Paraquat                                | 09/05/17    | <1.0         | (ug/L)          | 10            |
| Pentachlorophenol                       | 09/05/17    | <0.50        | (ug/L)          | 60            |
| Phorate                                 | 09/05/17    | <0.10        | (ug/L)          | 2             |
| Picloram                                | 09/05/17    | <0.60        | (ug/L)          | 190           |
| Polychlorinated Biphenyls (PCB)         | 09/05/17    | <0.035       | (ug/L)          | 3             |
| Prometryne                              | 09/05/17    | <0.10        | (ug/L)          | 1             |
| Simazine                                | 09/05/17    | <0.10        | (ug/L)          | 10            |
| Terbufos                                | 09/05/17    | <0.20        | (ug/L)          | 1             |
| Tetrachloroethylene (perchloroethylene) | 09/05/17    | <0.50        | (ug/L)          | 30            |
| 2,3,4,6-Tetrachlorophenol               | 09/05/17    | <0.50        | (ug/L)          | 100           |
| Triallate                               | 09/05/17    | <0.10        | (ug/L)          | 230           |
| Trichloroethylene                       | 09/05/17    | <0.50        | (ug/L)          | 50            |
| 2,4,6-Trichlorophenol                   | 09/05/17    | <0.50        | (ug/L)          | 5             |
| Trifluralin                             | 09/05/17    | <0.10        | (ug/L)          | 45            |
| Vinyl Chloride                          | 09/05/17    | <0.20        | (ug/L)          | 2             |

### Minto Pines Distribution System

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

| Parameter | Sample Date | Result Value | Unit of Measure | ODWS Criteria |
|-----------|-------------|--------------|-----------------|---------------|
| THM       | 06/02/17    | 9.6          | (ug/L)          | 100           |
|           | 09/05/17    | 5.2          |                 |               |
|           | 24/08/17    | 5.9          |                 |               |
|           | 20/11/17    | 6.1          |                 |               |



| Parameter | Sample Date | Result Value | Unit of Measure | ODWS Criteria |
|-----------|-------------|--------------|-----------------|---------------|
| HAA       | 06/02/17    | 1.4          | (ug/L)          | 80            |
|           | 09/05/17    | < 1.4        |                 |               |
|           | 24/08/17    | 2.2          |                 |               |
|           | 20/11/17    | 1.7          |                 |               |

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 |
|-----------|--------------|-----------------|----------------|
| N/A       | N/A          | N/A             | N/A            |

*(Only if DWS category is large municipal residential, small municipal residential, large municipal non residential, non municipal year round residential, large non municipal non residential)*