### 2015 ANNUAL REPORT - City of St. Catharines Distribution System

| Drinking-Water System Number:   | 260003279                                  |
|---------------------------------|--|
| Drinking-Water System Name:     | City of St. Catharines Distribution System |
| Drinking-Water System Owner:    | Corporation of the City of St. Catharines  |
| Drinking-Water System Category: | Large Municipal Residential (pop. 130,000) |
| Period being reported:          | January 1 – December 31, 2015              |

| Complete if your Category is Large Municipal<br>Residential or Small Municipal Residential  | <u>Complete for all other Categories.</u>  |
|---|--|
| Does your Drinking-Water System serve<br>more than 10,000 people? Yes [X] No [ ]  | Number of Designated Facilities served:  |
| Is your annual report available to the public<br>at no charge on a web site on the Internet?<br>Yes [X] No []<br>Location where Summary Report required<br>under Q. Bog. 170/03 Schedule 22 will be | Did you provide a copy of your annual<br>report to all Designated Facilities you<br>serve?<br>Yes [] No []                                   |
| under O. Reg. 170/03 Schedule 22 will be available for inspection.  | Number of Interested Authorities you report to:  |
| Lake Street Service Centre<br>383 Lake Street, St. Catharines, ON<br>L2N 4H5 -and-<br>City Hall<br>50 Church Street, St. Catharines, ON<br>L2R 7C2  | Did you provide a copy of your annual<br>report to all Interested Authorities you<br>report to for each Designated Facility?<br>Yes [] No [] |

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 |
|----------------------------|------------------------------|
| 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 [] Not Applicable

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

[X] Public access/notice via the web

[X] Public access/notice via Government Office

[ ] Public access/notice via a newspaper

[X] Public access/notice via Public Request

[ ] Public access/notice via a Public Library

[X] Public access/notice via other method Reports are available at various Public Education Displays

### Describe your Drinking-Water System

The City of St. Catharines owns and operates a Class II stand-alone residential water distribution system. The City receives its drinking water from the Regional Municipality of Niagara's Decew Water Treatment Plant. The source water is surface water from Lake Erie via an intake from the Welland Ship Canal. The distribution system consists of approximately 612 kilometres of watermain, approximately 3,500 hydrants and over 5,500 valves.

### Were any significant expenses incurred to?

- [] Install required equipment
- [] Repair required equipment
- **[X]** Replace required equipment

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

The 2015 water improvement program budget was \$5,500,000. This budget allowed for the replacement or upgrade of 5,055 m of existing watermain, the abandonment of 415 m of existing watermain and the installation of 270 m of new watermain.

## 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<br>Measure | Corrective<br>Action | Corrective Action<br>Date |
|--------------------|---------------------------|--------|--------------------|----------------------|---------------------------|
| August 13,<br>2015 | Total Coliform            | 1      | cfu/100mL          | Flushed, resampled   | August 14-16,<br>2015     |
| September 17, 2015 | Free Chlorine<br>Residual | 0.00   | mg/L               | Flushed, resampled   | September 17, 2015        |
| December 7, 2015   | Total Coliform            | 1      | cfu/100mL          | Flushed, resampled   | December 8-10, 2015       |

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

|              | Number<br>of<br>Samples | Range of E.Coli<br>Or Fecal<br>Results<br>(min #)-(max #) | Range of Total<br>Coliform<br>Results<br>(min #)-(max #) | Number<br>of HPC<br>Samples | Range of HPC<br>Results<br>(min #)-(max #) |
|--------------|-------------------------|---|--|-----------------------------|--|
| Raw          |                         |   |  |                             |  |
| Treated      |                         |   |  |                             |  |
| Distribution | 1774                    | 0   | 0-1  | 773                         | 0-280                                      |

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

|                  | Number of<br>Grab Samples | Range of Results<br>(min #)-(max #) | Unit of Measure |
|------------------|---------------------------|-------------------------------------|-----------------|
| Turbidity        |                           |                                     |                 |
| Chlorine         | 3031                      | 0.00-1.79                           | mg/L            |
| Fluoride (If the |                           |                                     |                 |
| DWS provides     |                           |                                     |                 |
| fluoridation)    |                           |                                     |                 |

NOTE: For continuous monitors use 8760 as the number of

#### 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 | Range of Lead Results | Unit of | Number of   |
|---------------|-----------|-----------------------|---------|-------------|
| Location Type | Samples   | (min#) – (max #)      | Measure | Exceedances |
| Plumbing      | 112       | <0.001-0.010          | mg/L    | 0           |
| Distribution  | 20        | <0.001                | mg/L    | 0           |

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

| Parameter                                    | Sample Date                 | Result Value | Unit of<br>Measure | Exceedance |
|--|-----------------------------|--------------|--------------------|------------|
| THM<br>(NOTE: show latest annual<br>average) | January –<br>December, 2015 | 0.0452       | mg/L               | 0          |

List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards.

| Parameter | <b>Result Value</b> | Unit of<br>Measure | Date of Sample |
|-----------|---------------------|--------------------|----------------|
| ТНМ       | 0.0568              | mg/L               | July 14, 2015  |