



**2016 ANNUAL REPORT**

<b>Drinking-Water System Licence:</b>	220002832 (OAP 177)
<b>Drinking-Water System Name:</b>	Hawkesbury Drinking Water System
<b>Drinking-Water System Owner:</b>	Corporation of the Town of Hawkesbury
<b>Drinking-Water System Category:</b>	Large Municipal Residential System
<b>Period being reported:</b>	January 1, 2016 to December 31, 2016

<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; margin-top: 10px;"> <p>-Technical Services Department              -Hawkesbury Public Library              -Web site: <a href="http://www.hawkesbury.ca">www.hawkesbury.ca</a>              -Township of Champlain</p> </div>	<p><b><u>Complete for all other Categories.</u></b></p> <p>Number of Designated Facilities served: <input style="width: 100px;" type="text"/></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"/> ]</p> <p>Number of Interested Authorities you report to: <input style="width: 100px;" type="text"/></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"/> ]</p>
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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
Township of Champlain (L'Orignal)	260037102
Township of Champlain (Vankleek Hill)	260002395
Township of Champlain (Park Laurentien)	260090012

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

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

Our waterworks currently serves a population of 10,854 in Hawkesbury and a population of approximately 3,400 in the town of Champlain. In accordance with its Official Plan, all development in the town has been provided with municipal water and sewer services. Water is supplied by the Water Filtration Plant, which is owned and operated by the municipality, and sewage is treated at the Water Pollution Control Plant which is also owned and operated by the municipality.

Our Water Filtration Plant is located at 670 Main Street West in Hawkesbury, Ontario. The plant was constructed in 1953 and upgraded and expanded in 1996. The system's upgrade and expansion consisted mainly of the following works:

- Construction and integration of a second clarifier unit in the treatment process complete with related piping, controls, etc...
- Construction and integration of a second potable water underground storage tank (2760 m<sup>3</sup>) with related piping, controls, etc...
- Construction of a new settling and decanting tank for clarifier sludge and backwash wastewater.
- Supply and Installation of a new high lift pumping equipment.
- Supply and Installation of a new SCADA control system.
- Replacement and/or relocation of yard piping.

We also have a 5,454 m<sup>3</sup> elevated storage reservoir in our distribution system located on Spence Av. in Hawkesbury.



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

- Liquid Chlorine (Compressed gas)
- Hydrated Lime
- Sodium Aluminate
- Sodium Silicate
- Liquid Poly Hydroxy Aluminum Sulphate (PAS-8)
- Alum
- Hydro Fluosilicic Acid
- Polyphosphate

**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**

- Rehab Cecil St. & Riordon St.  
Estimate expenses \$155 000
- Riordon St. New Water Main + Hydrant  
Estimate expenses \$50 000
- 2 Chlorinators for WTP  
Estimate expenses \$8 000

**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
August 22, 2016	Free Chlorine	0.02	mg/l	Flush hydrant	August 22, 2016
October 24, 2016	Free Chlorine	0.01	mg/l	Flush hydrant	October 24, 2016

**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	51	(0) – (67)	(2) – (980)	n/a	n/a
Treated	51	(0) – (0)	(0) – (0)	51	(2) – (8)
Distribution	400	(0) – (0)	(0) – (0)	153	(2) - (30)



**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 #)
<b>Turbidity</b>	<b>8760</b>	<b>(0.12) – (0.45) NTU</b>
<b>Chlorine</b>	<b>8760</b>	<b>(0.60) – (1.17)</b>
<b>Fluoride</b>	<b>8760</b>	<b>(0.53) – (0.74)</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
<b>April 25, 2005</b>	<b>TSS Creek discharge</b>	<b>1/ month</b>	<b>(4) – (13)</b>	<b>mg/L</b>

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedances
<b>Antimony</b>	<b>September 12, 2016</b>	<b>&lt; 0.0001</b>	<b>mg/L</b>	<b>no</b>
<b>Arsenic</b>	<b>September 12, 2016</b>	<b>0.0004</b>	<b>mg/L</b>	<b>no</b>
<b>Barium</b>	<b>September 12, 2016</b>	<b>0.013</b>	<b>mg/L</b>	<b>no</b>
<b>Boron</b>	<b>September 12, 2016</b>	<b>0.007</b>	<b>mg/L</b>	<b>no</b>
<b>Cadmium</b>	<b>September 12, 2016</b>	<b>&lt; 0.00002</b>	<b>mg/L</b>	<b>no</b>
<b>Chromium</b>	<b>September 12, 2016</b>	<b>&lt; 0.002</b>	<b>mg/L</b>	<b>no</b>
<b>Mercury</b>	<b>September 12, 2016</b>	<b>&lt; 0.00002</b>	<b>mg/L</b>	<b>no</b>
<b>Selenium</b>	<b>September 12, 2016</b>	<b>&lt; 0.001</b>	<b>mg/L</b>	<b>no</b>
<b>Sodium</b>	<b>March 29, 2016</b>	<b>7.50</b>	<b>mg/L</b>	<b>no</b>
<b>Uranium</b>	<b>September 12, 2016</b>	<b>&lt; 0.00005</b>	<b>mg/L</b>	<b>no</b>
<b>Nitrite</b>	<b>December 5, 2016</b>	<b>&lt; 0.1</b>	<b>mg/L</b>	<b>no</b>
<b>Nitrate</b>	<b>December 5, 2016</b>	<b>0.5</b>	<b>mg/L</b>	<b>no</b>

**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
<b>Plumbing</b>	<b>6</b>	<b>(&lt; 0.00003) – (0.00359)</b>	<b>none</b>
<b>Distribution</b>	<b>8</b>	<b>(&lt; 0.00002) – (0.00026)</b>	<b>none</b>

**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	September 12, 2016	< 0.3	µg /L	no
Atrazine + N-dealkylated metabolites	September 12, 2016	< 0.5	µg /L	no
Azinphos-methyl	September 12, 2016	< 1	µg /L	no
Benzene	September 12, 2016	< 0.5	µg /L	no
Benzo(a)pyrene	September 12, 2016	< 0.005	µg /L	no
Bromoxynil	September 12, 2016	< 0.3	µg /L	no
Carbaryl	September 12, 2016	< 3	µg /L	no
Carbofuran	September 12, 2016	< 1	µg /L	no
Carbon Tetrachloride	September 12, 2016	< 0.2	µg /L	no
Chlorpyrifos	September 12, 2016	< 0.5	µg /L	no
Diazinon	September 12, 2016	< 1	µg /L	no
Dicamba	September 12, 2016	< 5	µg /L	no
1,2-Dichlorobenzene	September 12, 2016	< 0.1	µg /L	no
1,4-Dichlorobenzene	September 12, 2016	< 0.2	µg /L	no
1,2-Dichloroethane	September 12, 2016	< 0.1	µg /L	no
1,1-Dichloroethylene (vinylidene chloride)	September 12, 2016	< 0.1	µg /L	no
Dichloromethane	September 12, 2016	< 0.3	µg /L	no
2,4 Dichlorophenol 2,4	September 12, 2016	< 0.1	µg /L	no
2,4-Dichlorophenoxy acetic acid (2,4-D)	September 12, 2016	< 5	µg /L	no
Diclofop-methyl	September 12, 2016	< 0.5	µg /L	no
Dimethoate	September 12, 2016	< 1	µg /L	no
Diquat	September 12, 2016	< 5	µg /L	no
Diuron	September 12, 2016	< 5	µg /L	no
Glyphosate	September 12, 2016	< 25	µg /L	no
Malathion	September 12, 2016	< 5	µg /L	no
Metolachlor	September 12, 2016	< 3	µg /L	no
Metribuzin	September 12, 2016	< 3	µg /L	no
Monochlorobenzene	September 12, 2016	< 0.2	µg /L	no
Paraquat	September 12, 2016	< 1	µg /L	no
Pentachlorophenol	September 12, 2016	< 0.1	µg /L	no
Phorate	September 12, 2016	< 0.3	µg /L	no
Picloram	September 12, 2016	< 5	µg /L	no
Polychlorinated Biphenyls(PCB)	September 12, 2016	< 0.05	µg /L	no
Prometryne	September 12, 2016	< 0.1	µg /L	no



<b>Simazine</b>	<b>September 12, 2016</b>	<b>&lt; 0.5</b>	<b>µg /L</b>	<b>no</b>
<b>THM</b>	<b>November 7, 2016</b>	<b>57.8</b>	<b>µg /L</b>	<b>no</b>
<b>Terbufos</b>	<b>September 12, 2016</b>	<b>&lt; 0.3</b>	<b>µg /L</b>	<b>no</b>
<b>Tetrachloroethylene</b>	<b>September 12, 2016</b>	<b>&lt; 0.2</b>	<b>µg /L</b>	<b>no</b>
<b>2,3,4,6-Tetrachlorophenol</b>	<b>September 12, 2016</b>	<b>&lt; 0.1</b>	<b>µg /L</b>	<b>no</b>
<b>Triallate</b>	<b>September 12, 2016</b>	<b>&lt; 10</b>	<b>µg /L</b>	<b>no</b>
<b>Trichloroethylene</b>	<b>September 12, 2016</b>	<b>&lt; 0.1</b>	<b>µg /L</b>	<b>no</b>
<b>2,4,6-Trichlorophenol</b>	<b>September 12, 2016</b>	<b>&lt; 0.1</b>	<b>µg /L</b>	<b>no</b>
<b>Trifluralin</b>	<b>September 12, 2016</b>	<b>&lt; 0.5</b>	<b>µg /L</b>	<b>no</b>
<b>Vinyl Chloride</b>	<b>September 12, 2016</b>	<b>&lt; 0.2</b>	<b>µg /L</b>	<b>no</b>
<b>MCPA</b>	<b>September 12, 2016</b>	<b>&lt; 0.00012</b>	<b>mg/L</b>	<b>no</b>

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

<b>Parameter</b>	<b>Result Value</b>	<b>Unit of Measure</b>	<b>Date of Sample</b>
<b>none</b>			

Prepared by Martin Perron  
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