



ANNUAL REPORT

Drinking-Water System Number:	260004735
Drinking-Water System Name:	Port Burwell Area Secondary Water Supply System
Drinking-Water System Owner:	Port Burwell Area Secondary Water Supply System Joint Board of Management
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1 <sup>st</sup> to December 31 <sup>st</sup> , 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 [ ] No [X]</p> <p>Is your annual report available to the public at no charge on a web site on the Internet? Yes [X] 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; margin-top: 10px;">       Township of Malahide Office        87 John Street        Aylmer, ON N5H 2C3     </div>	<p><b><u>Complete for all other Categories.</u></b></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 [ ] No [ ]</p> <p>Number of Interested Authorities you report to:  <div style="border: 1px solid black; width: 100px; height: 20px; margin: 5px auto;"></div> </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>
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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
Bayham Distribution System	260004748

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 [X] 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**

The Port Burwell Area Secondary Water Supply System transmission main extends from the Elgin Area Water Treatment Plant servicing Central Elgin, Malahide and Bayham. The watermain serves approximately 270 direct connections to the system. Tertiary lines are connected to the system through metering chambers. The entire system services approximately 3000 people.

The system has 48 sub-surface chambers for isolation, metering, air relief and draining. Along the main there are sample stations and hydrants for monitoring and flushing.

The Port Burwell Area Secondary Water System is controlled and monitored by the SCADA system. There is an elevated storage facility located on Nova Scotia Line, which is controlled by the valve house on Dexter Line. This Tower (Port Burwell Tower) has a capacity of 1518m<sup>3</sup>. The system is re-chlorinated at two locations: the Port Burwell Tower and Lakeview Re-Chlorination Facility. The re-chlorination facilities contain sodium hypochlorite dosing pumps connected to a Programmable Logic Controller (PLC), with a flow paced signal from the flow meter and chlorine analyzer for residual control by the PLC.

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

Sodium Hypochlorite 12%



**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**

-Painting on exterior and interior surfaces of the Port Burwell elevated water tower  
 -Installation of impressed current cathodic protection system for Port Burwell elevated water tower  
 -Metal upgrades at the Port Burwell elevated water tower  
 -Construction of 3.2km of new water main on Dexter Line new road construction west of Port Bruce  
 - Construction of three drain chambers, two air release chambers, and three valve/metering chambers on Dexter Line new section of water main constructed west of Port Bruce  
 -Construction of new re-chlorination facility on Dexter Line west of Port Bruce  
 -SCADA upgrades and maintenance for Port Burwell elevated tower painting project  
 -Installation of digital pressure gauge at Lakeview re-chlorination facility  
 -Installation of new pressure/flow control valve at MV1 metering facility  
 -Leak detection and datalogging EO38 and installation of pressure gauge  
 -New sample station installed at chamber EO13  
 -Leak repair east side of Lakeview re-chlorination facility  
 -Purchase spare chemical pumps for lakeview and tower along with repair kits  
 -Replaced chlorine sensor at lakeview  
 -New baseboard heaters for chlorine buildings at Tower and Lakeview  
 -Hydrant Painting and NFP colour coding

**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
n/a	n/a	n/a	n/a	n/a	n/a

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

	No. of Samples Collected for period being reported	Range of E.Coli Results (cfu/100mL)		Range of Total Coliform Results (cfu/100mL)		Number of HPC Samples	Range of HPC Results (cfu/mL)	
		Minimum	Maximum	Minimum	Maximum		Minimum	Maximum



<b>Distribution</b>	174	0	0	0	0	71	<10	>2000
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**Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03 during the period covered by this Annual Report.**

	No. of Samples Collected	Range of Results	
		Minimum	Maximum
<b>Free Chlorine Residual(mg/L)</b>	364	0.35	2.21

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

**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

**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
<b>Plumbing</b>	n/a	n/a	n/a	n/a
<b>Distribution</b>	n/a	n/a	n/a	n/a

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

DISTRIBUTION WATER	Sample Date (mm/dd/yyyy)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
Trihalomethane: Total (ug/L)	Annual Running Average	33.0	100.00	No	No

**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