



Ontario Clean Water Agency
Agence Ontarienne Des Eaux

March 30, 2017

Rob Johnson
Director of Physical Services
87 John Street South
Aylmer ON N5H 2C3

Re: Safe Drinking Water Act, O. Reg. 170/03 Schedule 22 Summary Report

Dear Mr. Johnson,

Attached is the 2016 Summary Report for the Port Burwell Area Secondary Water Supply System. This report is completed in accordance with Schedule 22 of O. Reg. 170/03, under the Safe Drinking Water Act.

This Summary Report is to be provided to the members of the Port Burwell Area Secondary Water Supply System Joint Board of Management by March 31, 2017. I have provided a copy to the members of the board via email.

We recently forwarded a copy of the 2016 Annual Report for the Port Burwell Area Secondary Water Supply System required under Section 11 of O. Reg. 170/03. Section 12 of O. Reg. 170/03, requires both the Summary Report and the Annual Report be made available for inspection by any member of the public during normal business hours, without charge. The reports should be made available for inspection at the office of the municipality, or at a location that is reasonably convenient to the users of the water system.

Please feel free to contact me should you require any additional information regarding these reports. I can be reached at 226-377-3563.

Sincerely,

A handwritten signature in black ink that reads "Cindy Sigurdson".

Cindy Sigurdson
Safety, Process and Compliance Manager

c.c. Dale LeBritton, OCWA's Regional Hub Manager
Sam Sianas, OCWA's Senior Operations Manager
Mike Taylor, Malahide's Water/Wastewater Operations Manager



**Ontario Clean Water Agency
Agence Ontarienne Des Eaux**

Annual Summary Report

For the

**Port Burwell Area Secondary
Water Supply System**

For the Year

2016

**Prepared for the Township of Malahide,
Administering Municipality for the Port Burwell
Area Secondary Water Supply System**

By the Ontario Clean Water Agency
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3	Corrective Actions Schedule 22-2 (2)(b) For each requirement referred to in section 2 that was not met, specify the duration of the failure and the measures that were taken to correct the failure.	1
4	Flow Summary Schedule 22-2 (3) <ol style="list-style-type: none"> 1. A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly total, average daily and maximum daily flows. 2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval, drinking water works permit or municipal drinking water licence, or if the system is receiving all of its water from another system under an agreement pursuant to subsection 5 (4), to the flow rates specified in the written agreement. 	2
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SECTION 1: Overview of System

This summary for the Port Burwell Area Secondary Water Supply System was published in accordance with Schedule 22 of Ontario's Drinking Water Systems Regulation for the reporting period of January 1, 2016 to December 31, 2016. The Port Burwell Area Secondary Water Supply System (waterworks number 260004735) is categorized as a Large Municipal Residential Drinking Water System.

This report was prepared by The Ontario Clean Water Agency on behalf of the Township of Malahide and must be supplied to the Port Burwell Area Secondary Water Supply System Joint Board of Management by March 31, 2017.

SECTION 2: Compliance

The Port Burwell Area Secondary Water Supply System was operated and maintained in such a manner that water supplied to the consumers and serviced by the system satisfied the requirements in the Safe Drinking Water Act, the regulations, the Municipal Drinking Water Licence (303-101) and Drinking Water Works Permit (303-201).

There were two non-compliances reported during the reporting year. The first occurred on May 29th where a low pressure situation occurred when there was a programming issue on the SCADA system which controls the flow to the system. During this time the Port Burwell Tower was isolated for painting and therefore when the malfunction occurred, the pressure dropped in the system. The second non-compliance occurred on June 13th, when the temporary watermain was damaged on Dexter Line. The Port Burwell Tower was still offline for painting and as a result of this event there was no pressure in the system.

The Annual inspection of the Port Burwell Area Secondary Water Supply System was conducted by the Ministry of the Environment and Climate Change (MOECC), Roland Plante, on April 13th, 2016. There were no non-compliances identified for the inspection period.

SECTION 3: Corrective Action

In response to the low pressure on May 29th, samples were obtained and notifications were provided to the health unit and the local MOECC. Sample results showed no adverse results.

For the June 13th event, the Medical Officer of Health issued a boil water advisory until sample results were received showing no adverse results. The watermain was repaired by the contractor onsite and system was flushed by the Operating Authority. Two sets of samples were obtained following the repair. The boil water advisory was lifted by the Medical Officer of Health on June 15th, when samples showed no adverse water condition. Notifications were made to the owner, health unit, MOECC, downstream consumers of the water and the municipalities the system serves.

The routine MOECC Inspections have an Inspection Rating Record, which evaluates the system to provide information for the owner/operator on areas that need to be improved. The particular areas that were evaluated for the Port Burwell Area Secondary Water Supply System were: Treatment Process, Distribution System, Operations Manuals, Logbooks, Certification and Training, Water Quality Monitoring,

Reporting and Corrective Actions and Treatment Process Monitoring. This system received 0 out of 264 non-compliance ratings and as such received 100% for the Final Inspection Rating.

SECTION 4: Summary and Discussion of Quantity of Water Supplied

The current Municipal Drinking Water Licence does not specify a rated capacity for this system. There are several metering sites throughout the system to capture flows.

The flow entering the Port Burwell Area Secondary Water Supply System is monitored at the Port Burwell Valve House. Refer to Appendix A for the flows during the reporting period. The average daily flow for 2016 was 646m³/day which is a decrease of 7.1% from 2015 average day flows. The maximum daily flow for 2016 was 1,029m³/day, which is a decrease of 61.4% from the previous year. This large decrease in maximum flow corresponds with a major watermain break that occurred on Nova Scotia Line in February 2015.

There are various flow meters within to the PBASWSS, these assist with providing flow data for billing purposes, chlorine dosing and line loss studies. Appendix B provides the monthly meter flows for each of these meters.

APPENDIX A

The table below is a summary of quantities and flow rates supplying the PBASWSS from the Port Burwell Valve House meter (MV1 Meter) for 2016 compared to 2015 values.

Month	2016 Total Flow (m ³)	2015 Total Flow (m ³)	2016 Average Day Flow (m ³ /day)	2015 Average Day Flow (m ³ /day)	% Difference between 2016 and 2015	2016 Max Day Flow (m ³ /day)	2015 Max Day Flow (m ³ /day)	% Difference Between 2016 and 2015
January	17,075	17,147	596.35	553	7.8	768	655	17.3
February	16,358	19,255	577.55	688	-16.1	728	2,663	-72.7
March	16,768	18,064	565.45	583	-3.0	820	750	9.3
April	19,261	17,810	603.57	594	1.6	814	762	6.8
May	19,006	23,360	629.29	754	-16.5	1029	1,128	-8.8
June	21,451	22,420	738.73	747	-1.1	925	978	-5.4
July	25,700	27,142	779.1	876	-11.1	909	1,151	-21.0
August	27,081	27,249	894.52	879	1.8	1573	1,245	26.3
September	21,984	23,986	758.43	800	-5.2	1269	1,118	13.5
October	19,192	20,757	606.19	670	-9.5	1172	921	27.3
November	15,140	18,580	505.07	619	-18.4	838	734	14.2
December	16,442	18,078	488.87	583	-16.1	720	717	0.4
Total Flow	235,458	253,848						
Average			645.56	695	-7.1			
Max						1,029	2,663	-61.4

APPENDIX B

The table below is a summary of flow volumes from the various flow meters in the PBASWSS.

Month	EO14 (m³)	Lakeview (m³)	EO38 (m³)	VO01 (m³)
January	18,922	11,105	5,465	5,602
February	15,614	10,230	5,191	5,074
March	16,886	10,706	6,243	4,738
April	17,964	11,085	5,985	5,538
May	20,482	12,666	7,862	5,303
June	22,659	13,727	8,538	5,575
July	26,102	15,232	10,884	5,228
August	28,291	14,901	10,162	4,436
September	2,265	12,519	7,998	4,158
October	4,333	11,143	4,129	4,200
November	3,243	9,765	5,775	5,480
December	3,293	10,415	5,284	5,501
Total Flow	180,053	143,494	83,516	60,832