



Ontario Clean Water Agency
Agence Ontarienne Des Eaux

136 Main Street East
Shelburne, Ontario
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March 2, 2017

Mr. John Telfer
CAO/Clerk
Town of Shelburne
203 Main Street East, Box 69
Shelburne, Ontario
L9V 3K7

RECEIVED

MAR - 2 2017

TOWN OF SHELBURNE

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

Mr. Telfer;

Attached is the 2016 Summary Report for the **Shelburne Water Supply System**. This report has been completed based on the information we have in our records and in accordance with Schedule 22 of O. Reg. 170/03, under the Safe Drinking Water Act, which requires a Summary Report to be prepared not later than March 31st of each year for the preceding calendar year. This report covers the period of January 1, 2016 to December 31, 2016.

After your review and inclusion of any additional information, this Summary Report must be provided to the members of the municipal council. The report is not intended for distribution to the Ministry of the Environment and Climate Change.

Section 12 of O. Reg. 170/03, requires both the Summary Report and the Annual Report to 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, as indicated in the Section 11 Annual Report, as required by Section 12 (4) of O. Reg. 170/03.

Sincerely,

Scott Craggs
Senior Operations Manager
West Highlands Hub
Ontario Clean Water Agency

SC/lb

cc: Lisa Benoit, PCT



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

SHELBURNE WATER SUPPLY SYSTEM
Large Municipal Residential Drinking Water System

SCHEDULE 22
SUMMARY REPORT

For the period of

JANUARY 01, 2016 TO DECEMBER 31, 2016

**Prepared by the Ontario Clean Water Agency
For the Town of Shelburne**

SUMMARY

This report is a summary of water quality and quantity information submitted in accordance with Schedule 22 of Ontario's Drinking Water System regulation for the reporting period of January 01, 2016 to December 31, 2016 for the Shelburne Water Supply System, located in the Town of Shelburne.

The summary includes:

1. Any requirements of the Act and Regulation, Orders or System Approval (s) that the system failed to meet during the reporting period and the measures taken to correct each failure.
2. A summary of the quantities and flow rates of water supplied during the reporting period, including monthly averages and maximum daily flows.
3. A comparison of the average and monthly maximum daily flows to the approved capacity specified in the System Approval.

ISSUES OF NON-COMPLIANCE

There were three (3) issues of non-compliance for the inspection period of September 15, 2015 to December 8, 2016 – an inspection rating of 89.15% was received.

The following table lists the requirements of the Act, Regulations, System Approval (s) and any Order that the system failed to meet during the reporting period and the measures taken to correct each failure:

Drinking Water Legislation	Requirement(s) the system failed to meet	Duration	Corrective Action(s)	Status
O. Reg. 170/03	Continuous monitoring equipment that was being utilized to fulfill O. Reg. 170/03 requirements was not performing tests for the parameters with at least the minimum frequency specified in the Table in Schedule 6 of O. Reg. 170/03 and/or was not recording data with the prescribed format	December 9, 2015 April 19, 2016 April 30, 2016	The owner/operating authority shall prepare a detailed plan outlining the action(s) to be undertaken to ensure that continuous monitoring equipment utilized to fulfill O. Reg. 170/03 requirements is performing tests for the parameters with at least the minimum frequency specified in the Table in Schedule 6 of O. Reg. 170/03. A copy of the plan shall be provided to the undersigned officer no later than March 1, 2017.	Completed
Part V SDWA	The operations and maintenance manuals did not meet the requirements of the Drinking Water Works Permit and Municipal Drinking Water Licence issued under Part V of the SDWA.	N/A	The owner/operating authority shall prepare a detailed plan outlining the action(s) to be undertaken to ensure compliance with the MDWL condition 16.0 "Operations and Maintenance Manual". A copy of the plan shall be provided to the undersigned officer no later than March 1, 2017.	Completed

O. Reg. 170/03 Section 10-3	All microbiological water quality monitoring requirements for treated samples were not being met.	September 24, 2016	The owner/operating authority shall ensure that treated water microbiological sampling is collected at least once every week in accordance with the definition of "week" and Schedule 10-3 in O.Reg. 170/03.	Completed
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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
2016/08/31	Total Coliform	3	cfu/100 mL	Resampled as per the regulations.	2016/09/06

ASSESSMENT OF FLOW RATES AND QUANTITIES OF WATER SUPPLIED

The following table lists the quantities and flow rates of the water supplied during the reporting period covered by this report, including monthly average and maximum daily flows and a comparison to the rated capacity and flow rates specified in the system approval:

Summary of Raw Water Flows - Shelburne

Well #1 Andrew St. Pumphouse

MDWL (Rated Capacity 2,261 m³/day)

MONTH	Avg. Daily Volume m ³	% Of Approved Volume	MAX Daily Volume m ³ /d	% Of Approved Volume
JANUARY	434.61	19.22	677.00	29.94
FEBRUARY	446.00	19.73	662.00	29.28
MARCH	369.48	16.34	667.00	29.50
APRIL	191.00	8.45	501.00	22.16
MAY	213.45	9.44	583.00	25.79
JUNE	244.97	10.83	608.00	26.89
JULY	266.03	11.77	447.00	19.77
AUGUST	233.45	10.33	661.00	29.23
SEPTEMBER	199.37	8.82	380.00	16.81
OCTOBER	259.00	11.46	692.00	30.61
NOVEMBER	207.37	9.17	642.00	28.39
DECEMBER	186.06	8.23	393.00	17.38

Well #3 Cedar St. Pumphouse

MDWL (Rated Capacity 1,309 m³/day)

MONTH	Avg. Flow Daily Volume m ³	% of Approved Volume	Max Daily Volume m ³	% Of Approved Volume
JANUARY	804.94	61.49	1149.00	87.78
FEBRUARY	792.28	60.53	1198.00	91.52
MARCH	906.97	69.29	1200.00	91.67
APRIL	474.20	36.23	1187.00	90.68
MAY	365.90	27.95	944.00	72.12
JUNE	510.03	38.96	1081.00	82.58
JULY	422.58	32.28	788.00	60.20
AUGUST	344.87	26.35	1214.00	92.74
SEPTEMBER	351.53	26.85	750.00	57.30
OCTOBER	413.23	31.57	1131.00	86.40
NOVEMBER	301.40	23.03	1002.00	76.55
DECEMBER	301.55	23.04	667.00	50.95

Well #5 & 6 combined (Fourth Line Pumphouse)

MDWL (Rated Capacity 1,987m³/day)

MONTH	Avg. Flow Rate m ³	% Of Approved Flow Rate	MAX Daily Volume m ³ /d	% Of Approved Volume
JANUARY	1004.23	50.54	1448.00	72.87
FEBRUARY	595.90	29.99	1222.00	61.50
MARCH	558.10	28.09	1344.00	67.64
APRIL	647.27	32.58	931.00	46.85
MAY	817.39	41.14	1227.00	61.75
JUNE	678.20	34.13	1055.00	53.10
JULY	705.32	35.50	880.00	44.29
AUGUST	662.61	33.35	901.00	45.34
SEPTEMBER	697.57	35.11	868.00	43.68
OCTOBER	707.94	35.63	2104.00	105.89
NOVEMBER	673.27	33.88	923.00	46.45
DECEMBER	655.06	32.97	866.00	43.58

* Flow exceedances occurred in October due to well capacity flow testing as per the MOECC requirements for the PTTW

Well #7 & 8 combined (Second Line SW Pumphouse)

MDWL (Rated Capacity 1,635m³/day)

MONTH	Avg. Flow Rate m ³	% Of Approved Flow Rate	MAX Daily Volume m ³ /d	% Of Approved Volume
JANUARY				
FEBRUARY				
MARCH	66.33	4.06	86.00	5.26
APRIL	607.60	37.16	1077.00	65.87
MAY	794.87	48.62	1140.00	69.72
JUNE	906.87	55.47	1203.00	73.58
JULY	855.74	52.34	1039.00	63.55
AUGUST	821.03	50.22	1150.00	70.34
SEPTEMBER	876.97	53.64	1126.00	68.87
OCTOBER	744.19	45.52	1628.00	99.57
NOVEMBER	694.70	42.49	897.00	54.86
DECEMBER	683.77	41.82	1152.00	70.46

APPENDIX A

Shelburne Drinking Water System

Water taking permitted as per **PTTW # 5632-A4JLLD**

Flow & Flowrates for Well 1, 3, 5/6 & 7/8

Location:

RW – Raw Water – Well #1

RW – Raw Water – Well #3

RW – Raw Water – Well #5/6 combined

RW – Raw Water – Well #7/8 combined

Facility Flow Summary

Drinking-Water System Number: 220004965
 Drinking-Water System Name: SHELBURNE DRINKING WATER SYSTEM
 Drinking-Water System Owner: Title Holder: Corporation/Company
 Drinking-Water System Category: Large Municipal Residential
 Municipal Drinking Water License: 109-101
 Period being reported: 01/2016 12/2016

Raw Water					
Raw Water (Source Name)		Raw Water - Well 1			
Source Type:		Drilled			
Drinking Water Permit to Take Water No:		5632-A4JLLD			
Month	Monthly Flow Total (m3/month)	Daily Flow Average (m3/day)	Daily Flow Maximum (m3/day)	Daily Flow Peak Flow Rate (L/min)	Daily Flow Peak Flow Rate (L/sec)
Jan	13473.00	434.61	677.00	498.00	8.30
Feb	12934.00	446.00	662.00	493.80	8.23
Mar	11454.00	369.48	667.00	555.60	9.26
Apr	5730.00	191.00	501.00	481.80	8.03
May	6617.00	213.45	583.00	488.40	8.14
Jun	7349.00	244.97	608.00	501.00	8.35
Jul	8247.00	266.03	447.00	495.60	8.26
Aug	7237.00	233.45	661.00	495.60	8.26
Sep	5981.00	199.37	380.00	511.80	8.53
Oct	8029.00	259.00	692.00	499.20	8.32
Nov	6221.00	207.37	642.00	497.40	8.29
Dec	5768.00	186.06	393.00	493.80	8.23
Total	99040.00				
Avg		270.90			
Max			692.00	555.60	9.26
Criteria			1642.00	1140.00	19.00

Facility Flow Summary

Drinking-Water System Number: 220004965
 Drinking-Water System Name: SHELBURNE DRINKING WATER SYSTEM
 Drinking-Water System Owner: Title Holder: Corporation/Company
 Drinking-Water System Category: Large Municipal Residential
 Municipal Drinking Water License: 109-101
 Period being reported: 01/2016 12/2016

Raw Water						
Raw Water (Source Name)		Raw Water - Well 3				
Source Type:		Drilled				
Drinking Water Permit to Take Water No:		5632-A4JLLD				
Month	Monthly Flow Total (m3/month)	Daily Flow Average (m3/day)	Daily Flow Maximum (m3/day)	Daily Flow Peak Flow Rate (L/min)	Daily Flow Peak Flow Rate (L/sec)	
Jan	24953.00	804.94	1149.00	867.60	14.46	
Feb	22976.00	792.28	1198.00	873.60	14.56	
Mar	28116.00	906.97	1200.00	868.80	14.48	
Apr	14226.00	474.20	1187.00	871.80	14.53	
May	11343.00	365.90	944.00	875.40	14.59	
Jun	15301.00	510.03	1081.00	873.60	14.56	
Jul	13100.00	422.58	788.00	877.80	14.63	
Aug	10691.00	344.87	1214.00	874.80	14.58	
Sep	10546.00	351.53	750.00	879.00	14.65	
Oct	12810.00	413.23	1131.00	916.80	15.09	
Nov	9042.00	301.40	1002.00	811.80	13.53	
Dec	9348.00	301.55	667.00	813.60	13.56	
Total	182452.00					
Avg		499.12				
Max			1214.00	905.40	15.09	
Criteria			1309.00	909.00	15.20	

Facility Flow Summary

Drinking-Water System Number: 220004965
 Drinking-Water System Name: SHELBURNE DRINKING WATER SYSTEM
 Drinking-Water System Owner: Title Holder: Corporation/Company
 Drinking-Water System Category: Large Municipal Residential
 Municipal Drinking Water License: 109-101
 Period being reported: 01/2016 12/2016

Raw Water					
Raw Water (Source Name)		<i>Raw Water - Well 5</i>			
Source Type:		<i>Drilled</i>			
Drinking Water Permit to Take Water No:		<i>5632-A4JLLD</i>			
Month	Monthly Flow Total (m3/month)	Daily Flow Average (m3/day)	Daily Flow Maximum (m3/day)	Daily Flow Peak Flow Rate (L/min)	Daily Flow Peak Flow Rate (L/sec)
Jan	14508.00	468.00	1348.00	1195.80	19.93
Feb	8336.40	287.46	617.00	1219.80	20.33
Mar	9524.00	307.23	1206.00	1370.40	22.84
Apr	6340.00	211.33	751.00	873.00	14.55
May	12592.00	406.19	1179.00	877.20	14.62
Jun	8150.00	271.67	587.00	1225.80	20.43
Jul	10993.00	354.61	640.00	848.40	14.14
Aug	9814.00	316.58	537.00	848.40	14.14
Sep	10150.00	338.33	597.00	853.80	14.23
Oct	13735.00	443.06	2104.00	1521.60	25.36
Nov	9625.00	320.83	567.00	1313.40	21.89
Dec	9692.00	312.65	488.00	1373.40	22.89
Total	123459.40				
Avg		336.50			
Max			2104.00	1521.60	25.36
Criteria			1964.00	1364.00	23.00

* Flow exceedances occurred in October due to well capacity flow testing as per the MOECC requirements for the PTTW

Facility Flow Summary

Drinking-Water System Number: 220004965
 Drinking-Water System Name: *SHELBURNE DRINKING WATER SYSTEM*
 Drinking-Water System Owner: *Title Holder: Corporation/Company*
 Drinking-Water System Category: *Large Municipal Residential*
 Municipal Drinking Water License: 109-101
 Period being reported: 01/2016 12/2016

Raw Water					
Raw Water (Source Name)		<i>Raw Water - Well 6</i>			
Source Type:		<i>Drilled</i>			
Drinking Water Permit to Take Water No:		<i>5632-A4JLLD</i>			
Month	Monthly Flow Total (m3/month)	Daily Flow Average (m3/day)	Daily Flow Maximum (m3/day)	Daily Flow Peak Flow Rate (L/min)	Daily Flow Peak Flow Rate (L/sec)
Jan	16623.00	536.23	1277.00	1131.60	18.86
Feb	8944.70	308.44	838.00	1122.00	18.70
Mar	7777.00	250.87	1258.00	1220.40	20.34
Apr	13078.00	435.93	884.00	1020.60	17.01
May	12747.00	411.19	1080.00	1026.60	17.11
Jun	12196.00	420.55	1001.00	1193.40	19.89
Jul	10872.00	350.71	715.00	1038.00	17.30
Aug	10727.00	346.03	708.00	1026.00	17.10
Sep	10777.00	359.23	572.00	1177.20	19.62
Oct	8211.00	264.87	1081.00	1133.40	18.89
Nov	10573.00	352.43	512.00	1035.00	17.25
Dec	10615.00	342.42	565.00	1044.60	17.41
Total	133140.70				
Avg		364.91			
Max			1277.00	1220.40	20.34
Criteria			1964.00	1364.00	23.00

Facility Flow Summary

Drinking-Water System Number: 220004965
 Drinking-Water System Name: SHELBURNE DRINKING WATER SYSTEM
 Drinking-Water System Owner: Title Holder: Corporation/Company
 Drinking-Water System Category: Large Municipal Residential
 Municipal Drinking Water License: 109-101
 Period being reported: 01/2016 12/2016

Raw Water					
Raw Water (Source Name)		<i>Raw Water - Well 7</i>			
Source Type:		<i>Drilled</i>			
Drinking Water Permit to Take Water No:		<i>5632-A4JLLD</i>			
Month	Monthly Flow Total (m3/month)	Daily Flow Average (m3/day)	Daily Flow Maximum (m3/day)	Daily Flow Peak Flow Rate (L/min)	Daily Flow Peak Flow Rate (L/sec)
Jan					
Feb					
Mar	121.00	40.33	64.00	1072.80	17.88
Apr	8993.00	299.77	772.00	1100.40	18.34
May	12445.00	401.45	1013.00	1107.60	18.46
Jun	12386.00	412.87	823.00	1114.20	18.57
Jul	13619.00	439.32	863.00	1116.60	18.61
Aug	12019.00	387.71	806.00	1467.60	24.46
Sep	12694.00	423.13	797.00	1117.20	18.62
Oct	14801.00	477.45	1628.00	1165.20	18.90
Nov	12498.00	416.60	561.00	1151.40	18.89
Dec	9120.00	294.19	413.00	1158.00	18.89
Total	108696.00				
Avg		359.28			
Max			1628.00	1467.60	24.46
Criteria			1635.00	1135.00	18.92

*** Flow exceedance occurred on August 26, 2016 due to operator flushing to waste after Gerrits drilling test for the monitoring well**

Facility Flow Summary

Drinking-Water System Number: 220004965
 Drinking-Water System Name: SHELBURNE DRINKING WATER SYSTEM
 Drinking-Water System Owner: Title Holder: Corporation/Company
 Drinking-Water System Category: Large Municipal Residential
 Municipal Drinking Water License: 109-101
 Period being reported: 01/2016 12/2016

Raw Water					
Raw Water (Source Name)		<i>Raw Water - Well 8</i>			
Source Type:		<i>Drilled</i>			
Drinking Water Permit to Take Water No:		<i>5632-A4JLLD</i>			
Month	Monthly Flow Total (m3/month)	Daily Flow Average (m3/day)	Daily Flow Maximum (m3/day)	Daily Flow Peak Flow Rate (L/min)	Daily Flow Peak Flow Rate (L/sec)
Jan					
Feb					
Mar	78.00	26.00	33.00	1131.60	18.86
Apr	9235.00	307.83	1005.00	1106.40	18.44
May	12196.00	393.42	1017.00	1106.40	18.44
Jun	14820.00	494.00	1133.00	1125.60	18.76
Jul	12909.00	416.42	829.00	1109.40	18.49
Aug	13433.00	433.32	731.00	1401.60	23.36
Sep	13615.00	453.83	818.00	1114.20	18.57
Oct	8269.00	266.74	944.00	1173.00	18.90
Nov	8343.00	278.10	512.00	1158.00	18.90
Dec	12077.00	389.58	843.00	1144.20	18.85
Total	104975.00				
Avg		345.93			
Max			1133.00	1401.60	23.36
Criteria			1635.00	1135.00	18.92

*** Flow exceedance occurred on August 26, 2016 due to operator flushing to waste after Gerrits drilling test for the monitoring well**