



**Township of Huron-Kinloss
Lakeshore Drinking Water System**



**Water Quality Summary Report
2017**



TABLE OF CONTENTS

OVERVIEW AND BACKGROUND

- Safe Drinking Water Act
- Legislative Framework

REPORTING REQUIREMENTS

1.0 Summary Report

- 1.1 Submission to the Township of Huron-Kinloss
- 1.2 Statement of Compliance
- 1.3 Summary of Flow Rates
 - Table 1
- 1.4 System Capacity
 - Table 2
- 1.5 Responsibility for Water Supply, Treatment and Storage
- 1.6 System Description
- 1.7 Licenses and Permits
- 1.8 System Infrastructure
- 1.9 Water Sampling and Testing
 - Requirement
 - Sampling Frequency and Location
- 1.10 Communications When Adverse Samples Are Identified
 - Requirement – Laboratory
 - Requirement – Drinking Water System Owner/Operating Authority

2.0 Annual Report

3.0 MOECC Inspection Report

- Precautionary Boil Water Notices
- Boil Water Advisory
- Compliance
- Non-Compliances
- Chemical Exceedances
 - Fluoride
 - Sodium

4.0 Municipal Drinking Water Management Review

- QMS Management Review Outcomes
- Infrastructure Review Outcomes and Infrastructure Programs Summary
- Infrastructure Assessment
- Audits

5.0 QMS Operational Plan



2017 Water Quality Summary Report

This is a summary of regulatory compliance for the Lakeshore Drinking Water System in 2017. A complete summary of the flows, sampling results, chemical use, and significant activities, was submitted on February 27, 2018 in the Annual Report.

OVERVIEW AND BACKGROUND:

Safe Drinking Water Act

Following the Walkerton tragedy in 2000, the Ontario Government developed a new, comprehensive legislative paradigm based on a source-to-tap, multi-barrier approach to the protection of drinking water. The *Safe Drinking Water Act (SDWA), 2002*, and its Regulations, contain requirements for Municipalities that provide potable water to their residents.

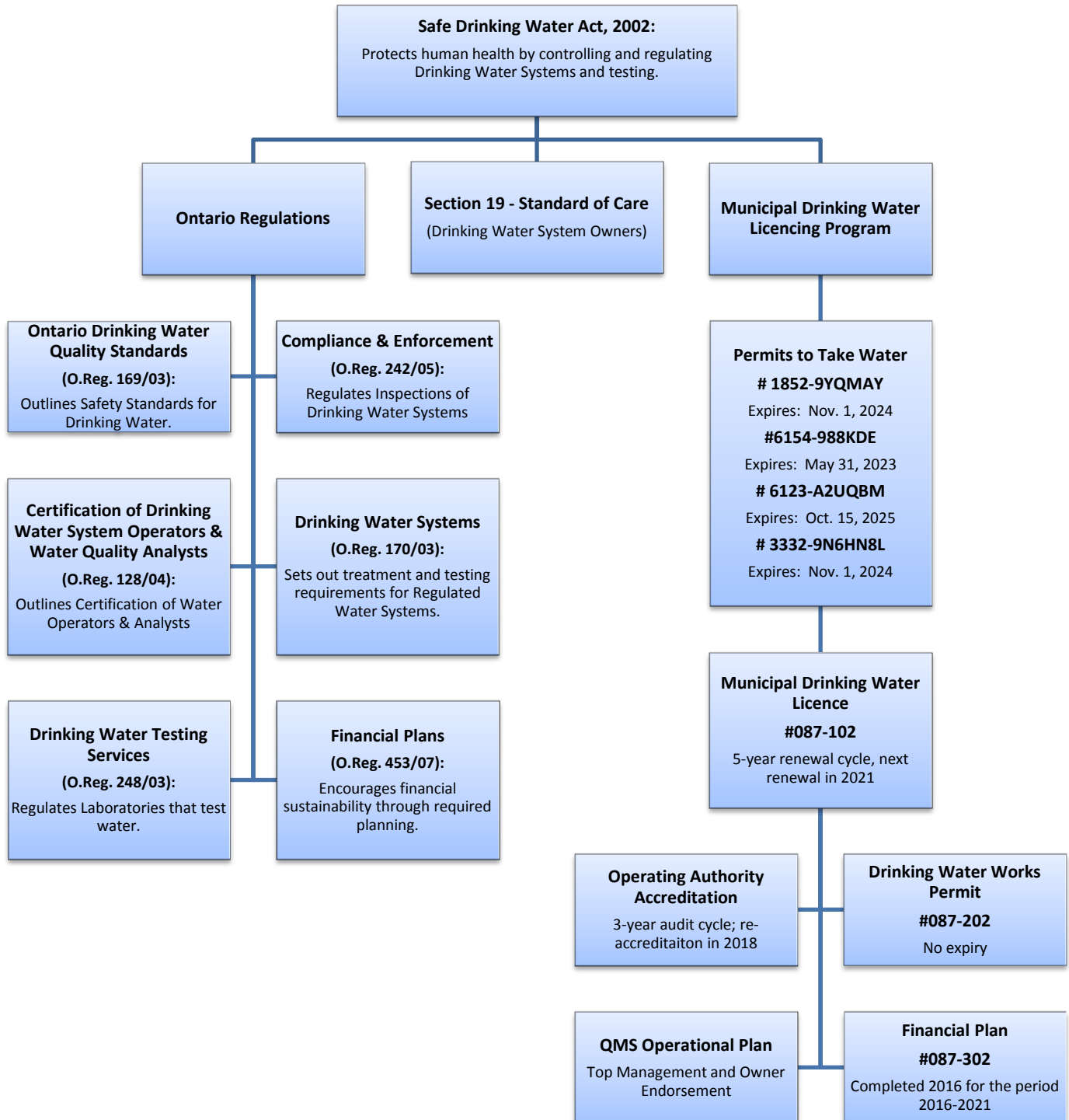
Under Section 19 (Standard of Care of the *SDWA*, owners of a Drinking Water System are required to:

- (a) exercise the level of care, diligence and skill in respect of a Municipal Drinking Water System that a reasonably prudent person would be expected to exercise in a similar situation; and
 - (b) act honestly, competently and with integrity, with a view to ensuring the protection and safety of the users of the Municipal Drinking Water System.
- 2002, c. 32, s. 19(1).

The following chart outlines key aspects of the *SDWA* that relate to Lakeshore's Drinking Water System:



Legislative Framework for the Lakeshore Drinking Water System





REPORTING REQUIREMENTS:

This report intends to provide relevant information to help the Township of Huron-Kinloss its Council, as owners of the Lakeshore Drinking Water System, meet this Standard of Care. Its contents are organized as follows, according to specific reporting requirements under the *SDWA*:

1. **Summary Report:** Schedule 22 of Ontario's *Drinking Water Systems Regulation* (O. Reg. 170/03) requires that a summary report be prepared for the preceding calendar year, and submitted to members of Council to disclose compliance status and provide pertinent water quality data.
2. **Annual Report (Appendix #1):** Section 11 of O. Reg. 170/03 requires that an annual report be prepared for the preceding calendar year, and submitted to members of Council and the Township of Huron-Kinloss. This report summarizes water quality monitoring, corrective actions, and major expenses, and is made available to the public on the Township of Huron-Kinloss website and at the Township office.
3. **MOECC Inspection Report (Appendix #2):** In 2006, the Ministry of the Environment and Climate Change (MOECC) introduced a comprehensive inspection program for Municipal Residential Drinking Water Systems. The objectives of this program are to determine compliance with the *SDWA* and associated regulations; to encourage the continuous improvement of the drinking water system; and to establish a process to measure these improvements.
4. **Municipal Drinking Water Management Review (Appendix #3):** The *SDWA*, through the Municipal Drinking Water Licensing program, requires that the Township maintain an accredited Quality Management System (QMS) for its drinking water system. This review communicates to Council key information related to the QMS and the Municipal Drinking Water Licensing program.
5. **QMS "Operational Plan" (Appendix #4):** The *SDWA*, through the Municipal Drinking Water Licensing program, requires that a Municipal Drinking Water System Owner (Council) endorse the most current version of the QMS Operational Plan. This document, once endorsed, is posted on the Township of Huron-Kinloss website and is available at the Operations Centre.

1. SUMMARY REPORT

1.1 Submission to the Township of Huron-Kinloss

Schedule 22 of Ontario Regulation 170/03 requires, for Large Municipal Residential Systems, that a Summary Report be prepared and submitted to the Township of Huron-Kinloss, for distribution to Council by March 31, 2018 for the period from January 1 to December 31, 2017.



1.2 Statement of Compliance

Requirements for owning and operating the Lakeshore Drinking Water System are contained within the SDWA, its applicable regulations, and its approval instruments.

- The MOECC “Drinking Water Ontario” web portal provides the most current version of the Act and its regulations: www.ene.gov.on.ca/environment/dwo
- The Township of Huron-Kinloss is approved by the MOECC to operate a Class 3 Distribution and Supply System through its Municipal Drinking Water Licence (MDWL) #087-102, and to alter the system through its Drinking Water Works Permit (DWWP) #087-202.

Compliance with these requirements is evaluated through annual Ministry Inspections. The Lakeshore 2016/2017 Inspection Report (Appendix #3) contains **two incidents of non-compliance** and a **rating of 99.40%**. There have been no Orders issued by the MOECC under the SDWA or Ontario Regulation 170/03 for the period of January 1, 2017 to December 31, 2017.

1.3 Summary of Flow Rates

Under Schedule 22-2(3) of O. Reg. 170/03, the Summary Report must include a summary of flow rates for the purpose of enabling the system owner to assess the capability of the system to meet existing and planned uses.

Table 1 is a summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average.

Table 1: 2017 Summary of Flows for Lakeshore

BLAIRS GROVE

Month	Raw Flow Daily Max (L/s)	Raw Flow Monthly Avg (L/s)	Raw Volume Monthly Total (m ³)	Raw Volume Daily Max (m ³)	Raw Volume Monthly Avg (m ³)	Capacity Monthly Max (%)
January	28.22	21.67	3,529.60	725.94	113.86	27.70
February	28.81	18.96	154.83	33.68	5.53	1.29
March	28.23	20.58	121.84	16.45	3.93	0.63
April	28.21	14.55	450.56	398.80	15.02	15.22
May	27.83	19.97	3,029.70	952.18	97.73	36.33
June	27.82	21.62	273.75	174.98	9.13	6.68
July	27.79	21.12	210.90	20.39	6.80	0.78
August	27.14	20.59	192.23	29.07	10.68	1.11
September	27.59	19.41	175.06	24.22	5.84	0.92
October	27.58	18.70	84.88	10.52	4.99	0.40
November	27.61	18.69	153.43	26.18	5.11	1.00
December	27.27	21.58	274.07	79.42	8.84	3.03
PTTW Max	30.33	30.33	79,722.08	2,621	---	---
Annual Max	28.81	---	3,529.60	952.18	---	36.33
Annual Avg	---	19.79	720.90	---	23.96	0.91
Annual Total	---	---	8,650.85	---	---	---



HURONVILLE SOUTH

Month	Treated Flow Daily Max (L/s)	Treated Flow Monthly Avg (L/s)	Treated Volume Monthly Total (m³)	Treated Volume Daily Max (m³)	Treated Volume Monthly Avg (m³)	Capacity Monthly Max (%)
January	7.54	2.77	7,245.31	270.13	233.72	6.88
February	11.13	2.82	6,739.81	273.90	240.71	6.97
March	30.90	4.38	11,723.83	2,174.51	378.19	55.36
April	27.98	3.30	8,552.28	388.91	285.08	9.90
May	34.32	6.25	16,680.74	862.10	538.09	21.95
June	24.44	8.50	21,998.09	1,184.12	733.27	30.15
July	29.62	9.17	24,340.70	994.31	785.18	25.32
August	40.57	11.19	29,938.36	1,912.67	965.75	48.70
September	26.92	8.13	21,043.82	902.56	701.46	22.98
October	23.81	4.29	11,491.25	643.39	370.69	16.38
November	25.88	3.40	8,818.18	524.28	293.94	13.35
December	21.67	3.45	9,221.90	338.51	297.48	8.62
PTTW Max	45.47	45.47	119,468.75	3,927.74	---	---
Annual Max	40.57	---	29,938.36	2,174.51	---	55.36
Annual Avg	---	5.64	14,816.19	---	485.30	12.36
Annual Total	---	---	177,794.27	---	---	---

MURDOCK GLEN

Month	Raw Flow Daily Max (L/s)	Raw Flow Monthly Avg (L/s)	Raw Volume Monthly Total (m³)	Raw Volume Daily Max (m³)	Raw Volume Monthly Avg (m³)	Capacity Daily Max (%)
January	19.18	17.92	1,498.15	147.35	48.33	8.12
February	19.32	17.65	1,284.37	150.82	45.87	8.31
March	19.22	18.09	1,647.06	160.31	53.13	8.84
April	19.30	17.97	1,773.58	132.68	59.12	7.31
May	19.29	18.25	5,157.95	272.98	166.39	15.05
June	19.23	18.24	3,233.37	196.76	107.78	10.85
July	19.15	18.02	3,927.85	156.51	126.70	8.63
August	19.10	18.11	4,980.98	567.88	160.68	31.31
September	19.06	17.90	2,613.98	193.81	87.13	10.68
October	19.13	18.02	2,356.03	313.16	76.00	17.26
November	19.14	18.06	1,524.38	129.23	50.81	7.12
December	19.13	17.38	1,425.08	73.55	45.97	4.05
PTTW Max	21.0	21.0	55,188.00	1,814.40	---	---
Annual Max	19.32	---	5,157.95	567.88	---	31.31
Annual Avg	---	17.97	2,618.57	---	85.66	4.72
Annual Total	---	---	31,422.78	---	---	---



POINT CLARK

Month	Raw Flow Daily Max (L/s)	Raw Flow Monthly Avg (L/s)	Raw Volume Monthly Total (m ³)	Raw Volume Daily Max (m ³)	Raw Volume Monthly Avg (m ³)	Capacity Daily Max (%)
January	33.08	20.88	17,313.79	837.64	558.51	25.59
February	31.56	20.37	19,475.10	884.53	695.51	27.02
March	32.01	20.46	22,311.81	836.79	719.74	25.57
April	33.41	20.77	27,907.57	1,217.36	930.25	37.19
May	33.45	17.51	33,364.51	1,574.81	1076.27	48.11
June	32.70	20.77	34,111.89	1,821.62	1137.06	55.65
July	33.42	20.81	38,094.67	1,611.34	1228.86	49.23
August	33.06	20.85	41,875.67	1,860.78	1350.83	56.85
September	35.73	20.71	31,420.37	1,449.30	1047.35	44.28
October	33.42	20.81	30,930.67	1,521.94	997.76	46.50
November	33.84	20.78	23,669.23	1,069.98	788.98	32.69
December	34.39	20.74	26,003.33	1,025.76	838.82	31.34
PTTW Max	37.88	37.88	99,557.40	3,273.12	---	---
Annual Max	35.73	---	41,875.67	1,860.78	---	56.85
Annual Avg	---	20.46	28,873.22	---	947.50	28.95
Annual Total	---	---	346,478.61	---	---	---

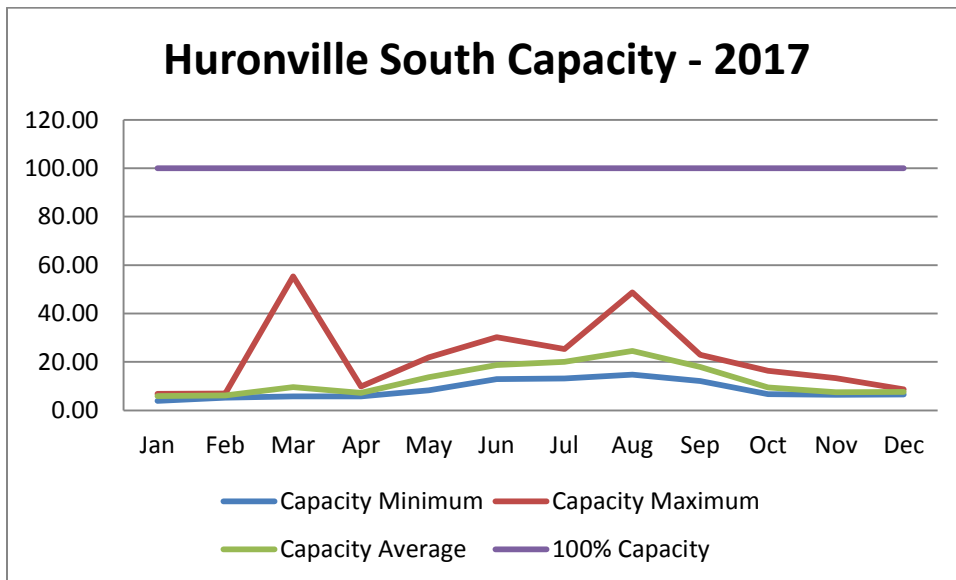
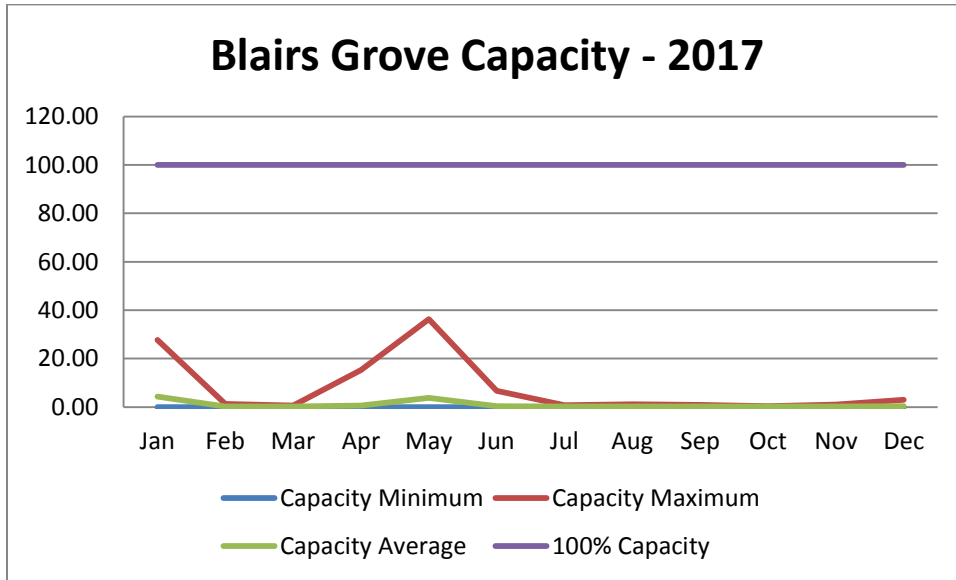
1.4 System Capacity

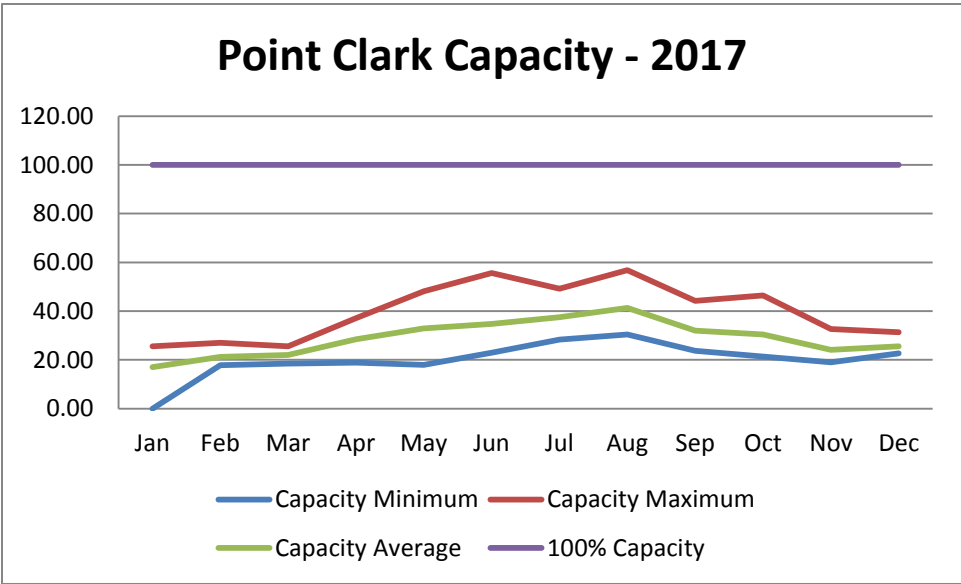
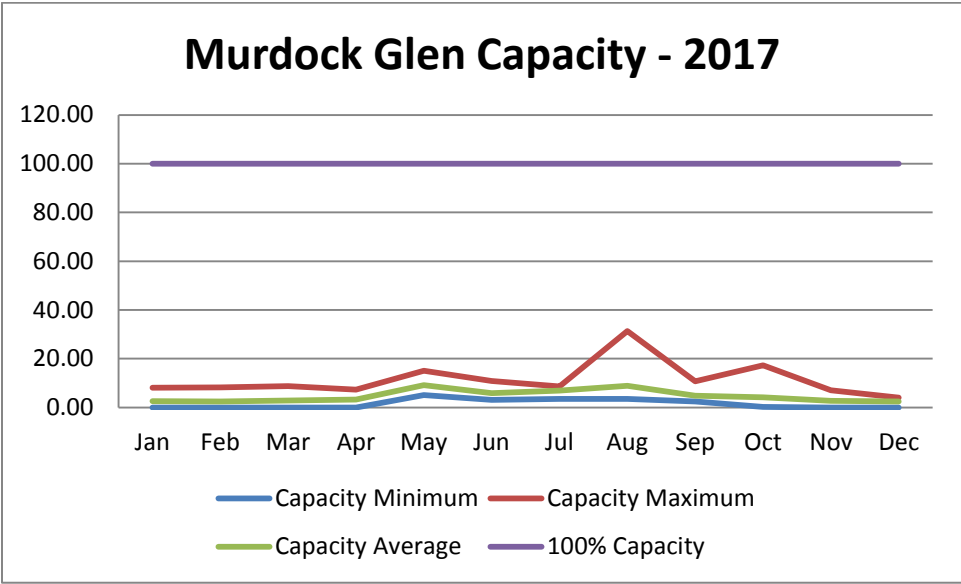
Under Schedule 22-2(3) of O. Reg. 170/03, the Summary Report must also include a comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval, drinking water works permit or municipal drinking water licence.

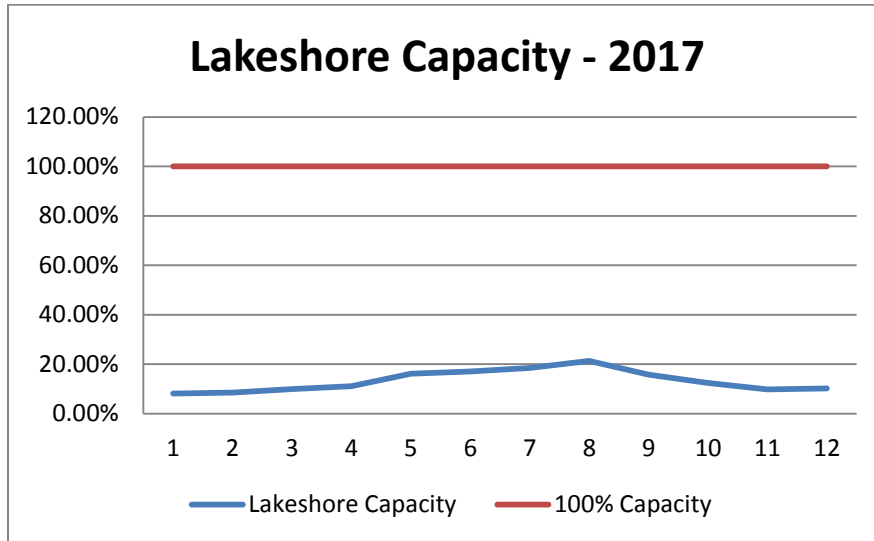
Table 2 is a summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average, for each of the well houses. The total system capacity is shown in the last graph. It represents the percentage capacity of sum of all the water produced in relation to the total system volume permitted.



Table 2: 2017 Flow Summary Compared to Rated Capacity







Annual Lakeshore Rated Capacity, PTTW (m³)	4,247,234.90 m ³
Annual Lakeshore Total Volume, Actual (m³)	564,346.51 m ³
Annual Lakeshore Total Capacity %	13.29 %

1.4 Responsibility for Water Supply, Treatment and Storage

Provincial Legislation sets out the responsibility for the Lakeshore Drinking Water Supply. Under the *Municipal Act, 2001*, the Township of Huron-Kinloss is responsible for the treatment and storage of water for the Lakeshore. Veolia Water has been retained by the Township of Huron-Kinloss as the Operating Authority for the Lakeshore Drinking Water System.

1.5 System Description

The Lakeshore water system is characterized as a “secure ground water” system and is categorized as a Class 3 Distribution and Supply Large Municipal Residential drinking water system as per O. Reg. 170/03. The system consists of four sub-systems and its equipment has a daily maximum capacity to deliver 11,636 m³ of potable water to the Huron-Kinloss Lakeshore community, extending from Point Clark in the south, to Huronville in the north, and the subsystem supplying the Courtney/Amberley Beach Subdivision in the Township Ashfield-Colborne- Wawanosh.

The water sources are five secure deep bed rock wells. Two are located at the Point Clark well house, one at Blairs Grove, one at Murdock Glen, and one at Huronville South. The equipment in each well house is SCADA controlled from a central computer in Ripley. Each well house is equipped with well pumps, high lift pumps, iron sequestering, chlorinators, a chlorine contact structure and on-line monitoring.

The well houses, originally constructed in the early 1990’s, were upgraded in 2006 with chlorine contact facilities being added. Improvements to the SCADA system were begun in 2007. Eramosa began in August of 2014 to replace the obsolete SCADA. The SCADA system is still limited by the current (and obsolete) operating system, Windows XP.

The production wells were drilled over a period of time. The oldest being Well # 2 at Blairs Grove in 1982, then Well # 2 at Murdock Glen in 1992, followed by Well # 2 at Point Clark and Well # 2 at Huronville South in 1994, and lastly, Well # 3 at Point Clark in 2015. All the production wells, with the exception of Point Clark Well # 3, were inspected with a video camera in 2006. New well pumps and piping were installed in all the wells in 2006.



The attached distribution system is a combination of PVC and polyethylene water mains. Much of the system has been installed since 1992, and the systematic replacement plan of the older polyethylene pipe begun in that year continues with annual projects scheduled. In addition to the water mains, associated valves, and hydrants, the distribution system includes a standpipe at Point Clark that contains approximately 1,500 m³ operating volume of water. This structure also maintains system pressure for Zone 1 of the distribution system. There are three main pressure zones on the Lakeshore system. Zones 2 and 3 have variable speed pumps to provide constant system pressure. All three pressure zones are connected by pressure regulating valves. Should Zone 2 and Zone 3 experience a complete pump failure, limited system pressure would be maintained throughout the Lakeshore system by the Point Clark standpipe.

There is also an interconnecting valve at the north end of the system (near Huronville South), that joins with the Town of Kincardine Drinking Water System. Under normal operating conditions, this valve remains closed to isolate both water systems. In very unique (emergency-type) situations and permissions, this valve can be opened to supply water from one system to the other.

1.6 Licences and Permits

The Lakeshore drinking water system has the following licences and permits:

Blairs Grove PTTW:	#6154-988KDE	Issued: July 3, 2013	Expires: May 31, 2023
Huronville South PTTW:	#3332-9N6H8L	Issued: Nov. 13, 2014	Expires: Nov. 1, 2024
Murdock Glen PTTW:	#6123-A2UQBM	Issued: Oct. 5, 2015	Expires: Oct. 15, 2025
Point Clark PTTW:	#1852-9YQMAY	Issued: July 30, 2015	Expires: Nov. 1, 2024
MDWL:	# 087-102	Issued: May 20, 2016	Expires: May 19, 2021
DWWP:	# 087-202	Issued: May 20, 2016	Expires: No expiry

CT calculations for Lakeshore are based on flow and maintaining at least the minimum free chlorine residual. The limiting factor regarding flow is chlorine contact time. In order to meet the regulatory CT requirements, the maximum allowed flow must correspond with a free chlorine residual capable of achieving **2-log removal or inactivation of viruses** as outlined in the *MOECC Procedure for Disinfection of Drinking Water in Ontario*.

1.7 System Infrastructure

The Lakeshore Drinking Water System has a distribution network of 56.5 km, with approximately 187 fire hydrants, 38 blow-offs, and 2,185 customer services plus 139 service connections, 11 hydrants and 5 blow-offs to the south in the Courtney/Amberley Beach Subdivision. The distribution system is a combination of PVC and polyethylene water mains, with sizes varying between 1-inch and 10-inch diameter.

Semi-annual flushing is performed in Spring and Fall, in conjunction with valve turning.



1.8 Water Sampling and Testing

The purpose of sampling and testing is to confirm that water is safe for human consumption and to provide a comprehensive track record.

Requirement:

O. Reg. 170/03 stipulates the minimum number and frequency of sampling for Lakeshore’s distribution system. Based on the potential of 5,548 residents (permanent and transient cottagers), and in accordance with the 2017 Lakeshore Inspection Report (Appendix #2), Lakeshore must meet the following annual sampling requirements:

Parameter	Description	Required # of Samples	Requirement Source
Chlorine Residual (grab)	For monitoring amount of residual in system, and confirming of water quality following maintenance	365	O. Reg. 170/03, Sch. 7, S. 7-2
E. Coli Total Coliform Heterotrophic Plate Count (HPC)	For testing presence of microbiological activity	156	O. Reg. 170/03, Sch. 10
Trihalomethanes (THMs)	For testing presence of disinfection by-products	4	O. Reg. 170/03, Sch. 13, S. 13-6
Lead (Pb)	For testing presence of lead in the distribution system only – not private side	* reduced sampling in effect for 2017	O. Reg. 170/03, Sch. 15; MDWL # 087-102, Sch. D
Haloacetic Acids (HAAs)	For monitoring the formation of disinfection by-products (DBPs)	4	O. Reg. 170/03, Sch. 13, S. 13-6.1

Sampling Frequency and Location:

Currently, operators collect water samples for microbiological analysis on a weekly basis, and perform grab chlorine residuals on a daily basis. Operators may use Town buildings, businesses, sample stations, and residential homes to collect samples, depending on access to sample taps.

In 2017, staff collected 678 distribution chlorine residuals and 365 microbiological samples. Chlorine residuals are measured with each distribution sample collected, as well as on a daily basis. Microbiological samples are sent primarily to E3 Laboratories in Niagara-on-the-Lake, but on occasion they are sent to SGS Environmental in London. Staff also collected 4 pH and alkalinity samples, and 16 THMs through this reporting period.

1.9 Communications When Adverse Water Samples Are Identified

Requirement – Laboratory:

A water sample that does not meet Provincial water quality standards is considered “adverse”. When adverse water quality is detected, the accredited laboratory conducting the testing will immediately notify the Operating Authority, the Spills Action Centre (SAC), and the Grey Bruce Medical Officer of Health, and occasionally the Huron County Medical Officer of Health (as necessary). This notification is made by telephone through live communication to a person in authority. In addition to the phone calls, a fax is sent to the three agencies to verify the live communication made earlier.

Requirement – Drinking Water System Owner/Operating Authority:

The SDWA also requires the drinking water system Owner/Operating Authority to immediately notify the MOECC and the Grey Bruce and/or Huron County Medical Officer of Health that the laboratory notice has been received and that “corrective actions” are being initiated. The method of contact is by telephone to a person of authority. The Operating Authority also faxes both agencies first to verify the previous live communication, and to confirm that corrective actions have been completed and the issue resolved.



This reporting system provides assurance that the water works owner is complying with the applicable regulations and that appropriate corrective actions are being taken and are being reported.

2.0 ANNUAL REPORT

The Annual Report is appended to this report as *Appendix #1*. Section 11 of Ontario Regulation 170/03 requires that an Annual Report be prepared by February 28th each year for the preceding calendar year. As well, the Annual Report must be made available to the public, free of charge. To meet this requirement, the Lakeshore 2017 Annual Report will be posted on the Township website and shall be available at the Township Office. The Annual Report must include:

- A brief description of the water system.
- A summary of chemical usage for treatment.
- A summary of expenses incurred to make improvements to the water system.
- A summary of water quality testing results for microbiological, inorganic chemical and organic chemical parameters.
- A summary of adverse water quality reports.
- A description of how the Annual Report has been distributed and where the Annual Report and Summary Report required under O. Reg. 170/03 Schedule 22, will be located in order to be accessible to the public.

3.0 MOECC INSPECTION REPORT

There was an MOECC Drinking Water Inspection performed in January 2017. At this time, MOECC staff conducted an ‘announced detailed inspection’ of the Lakeshore Drinking Water System. The inspection included a review of operating manuals, logbooks, staff certification and training, and water quality monitoring. It also includes an audit of the SCADA alarm history, data collection, summary and incident reports, and the operator log-in history. A second ‘unannounced focused inspection’ was conducted on December 6, 2017.

The entire process concludes with an Inspection Report that includes required actions, recommended actions, and a final inspection rating. A low inspection rating does not necessarily mean that the drinking water provided is unsafe; however, it does indicate the degree to which there is room for improvement in meeting the Provincial regulatory requirements. These findings are used as a tool to track progress towards the Chief Drinking Water Inspector’s goal of achieving 100% compliance with the regulatory framework on a Province wide basis.

The Operating Authority achieved a rating of 99.40% on the January 2017 Lakeshore Inspection Report, and 100% on the December 2017 Lakeshore Inspection Report – an improvement from the previous 2015 Lakeshore Inspection Report (88.07%).

Precautionary Boil Water Notices

There were no Precautionary Boil Water Notices issued by the Operating Authority in 2017 on the Lakeshore Drinking Water System.

Boil Water Advisory

There were no Boil Water Advisories issued by the Grey Bruce MOH on the Lakeshore Drinking Water System in 2017.

Compliance

There were two adverse water quality incident reports (AWQI) filed with the MOECC and the Grey Bruce and Huron County Health Units in 2017.



- AWQI # 135640, August 18, 2017: Fluoride exceedance for Blairs Grove, Huronville South, Murdock Glen, and Point Clark
- AWQI # 135888, August 24, 2017: 1 positive Total Coliform result from Murdock Glen Treated Water

Non-Compliances

- SCADA data gaps

Chemical Exceedances

- **Fluoride**

O. Reg. 169/03 (the Ontario Drinking Water Standard) has a MAC (maximum allowable concentration) of 1.5 mg/L for fluoride. The water from Lakeshore is monitored for this element. All four Lakeshore well houses have naturally occurring levels that exceed 1.5 mg/L. A report is filed with the Grey Bruce Health unit regarding this exceedance. As required by O. Reg. 170/03 schedule 13, section 13-9 an AWQI (adverse water quality indicator) report is filed with the MOECC and the MOH every 60 months: this was submitted November 5, 2013. The results from August 15, 2017 were as follows:

Blairs Grove Treated Water:	2.20 mg/L
Huronville South Treated Water:	2.24 mg/L
Murdock Glen Treated Water:	2.14 mg/L
Point Clark Treated Water:	2.20 mg/L

- **Sodium**

O. Reg. 169/03 has an MAC of 20.0 mg/L for sodium. As required by O. Reg. 170/03 schedule 13, section 13-8 the water is sampled every 60 months for sodium. This was reported in June 2016. It will need to be re-submitted in June 2021. The results from June 2016 were as follows:

Blairs Grove Treated Water:	101 mg/L
Huronville South Treated Water:	52.7 mg/L
Murdock Glen Treated Water:	68.4 mg/L

4.0 MUNICIPAL DRINKING WATER MANAGEMENT REVIEW:

The Township of Huron-Kinloss received the first Municipal Drinking Water License and Drinking Water Works Permit for the Lakeshore Drinking Water System on August 4, 2011. According to the five-year renewal cycle, these documents were due for renewal prior to August 4, 2016. Renewal submissions were made early in 2016, and these documents were renewed. The MDWL will now expire in May 2021.

Under the Licensing program, the Township of Huron-Kinloss is required to maintain a drinking water Quality Management System (QMS). *Appendix 3* contains information and updates related to the QMS that, in accordance with the Provincial Drinking Water Quality Management Standard (DWQMS), must be communicated to Council on an annual basis.

Note: For QMS Roles and Responsibilities, see Organizational Chart and Roles & Responsibilities Table in Appendix 4 – Operational Plan.

- a. QMS Management Review Outcomes – includes action items from the most recent Management Review meeting
- b. Infrastructure Review Outcomes and Infrastructure Programs Summary – includes a summary of the infrastructure review process and of infrastructure repair, rehabilitation, and renewal programming.



Infrastructure Assessment

Regular contact is maintained with the Huron-Kinloss representative and also a written monthly report is submitted. The JobsPlus program is continually updated with preventative and corrective maintenance issues. A complete summary can be forwarded to the client upon their request. Through regular communication between the operating authority and the client, capital items are discussed. A list of capital items and concerns was forwarded to the Huron-Kinloss representative on October 31, 2017.

The annual Management Review was conducted by the operating authority on May 25, 2017, as per the DWQMS requirement in Element 14. These regular discussions between the client and the operating authority for this water system are continued throughout the year by emails, phone calls, monthly reports, and meetings as per the requirements of Element 15 of the DWQMS.

The S1 Surveillance Audit was conducted by SAI on June 30, 2016. The 36-month Risk Assessment was completed October 20, 2016 and the Internal Audit was completed on December 5-6, 2017. The staff was involved with an Emergency Response exercise on December 20, 2017, which involved a chemical spill near a wellhead.

5.0 QMS OPERATIONAL PLAN

The Township of Huron-Kinloss must document its QMS in an Operational Plan, which must be endorsed by QMS Top Management and Huron-Kinloss Council, and made available to the public. The Operational Plan was reviewed in 2017 as part of the Risk Assessment. *Appendix 4* contains the Lakeshore Drinking Water System QMS Operational Plan.

Attachments:

- Appendix 1 – 2017 Annual Report
- Appendix 2 – 2017 MOECC Inspection Reports
- Appendix 3 – QMS Management Review
- Appendix 4 – QMS Operational Plan

John Graham, Project Manager

Veolia Water Canada, Inc.

100 Cove Road, P.O. Box 185

Goderich, Ontario

N7A 3Z2

Tel 519-524-6583 ext 310

Fax 519-524-9358

www.veoliawaterna.com