

**SUMMARY REPORT
TOWN OF ERIN**

**HILLSBURGH WELL SUPPLY
DRINKING –WATER SYSTEM NO. 220007285**

Municipal Drinking Water License Number 102-102

Drinking Water Works Permit Number 102-202

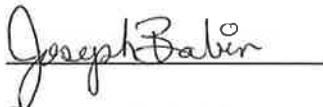
PTTW # 6306-8X5KRY

PTTW # 8548-6SBGWC

PTTW # 7740-A9ZNTP

.....

**Submitted by: Joe Babin
Water Superintendent**

Signature: 

Date: January 23, 2017

Prepared by: Sara McDougall

SUMMARY REPORT FOR THE TOWN OF ERIN HILLSBURGH WELL SUPPLY

Ministry of Environment and Climate Change
Municipal Drinking Water License Number 102-102
Drinking Water Works Permit Number 102-202
Permit to Take Water No. 6306-8X5KRY
Permit to Take Water No. 8548-6SBGWC (January 1 to May 17, 2016)
Permit to Take Water No. 7740-A9ZNTF (May 18 to December 31, 2016)

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Section 1 – Introduction

The 2016 Hillsburgh Well Supply Summary Report addresses the requirements outlined in Schedule 22 of the Ontario Drinking Water Systems Regulation (O. Reg. 170/03) under the *Safe Drinking Water Act, 2002*. For purposes of that regulation, the Town of Erin - Hillsburgh Well Supply is considered to be a large municipal residential system.

The summary report identifies Hillsburgh Well Supply's Licenses and Permits, and includes a statement of compliance with the terms and conditions of the Drinking Water Works Permits, Municipal Drinking Water Licenses, Permits to Take Water and the drinking water regulations under the *Safe Drinking Water Act*. The report also includes a summary of the quantities and flow rates of water supplied, including monthly average and maximum daily flows during the period from January 1st to December 31st, 2016.

A copy of Schedule 22 from O.Reg. 170/03 is in Appendix 1 of this report.

Section 2 – Background

In 2002, the *Safe Drinking Water Act* was passed by the Ontario government, and by 2003, all municipal and non-municipal drinking water systems in Ontario were governed by this Act and its Regulations.

A list of the Regulations enacted under the *Safe Drinking Water Act* can be found in Appendix 2 of this report.

The reporting period for this report is January 1, 2016 to December 31, 2016.

The Town of Erin continues to operate our water systems through adherence to our Municipal Drinking Water License and our Drinking Water Works Permit. The Municipal Drinking Water License provides the required legislative authority to operate the system, and the Drinking Water Works Permit provides the descriptive scope of our water system and the authority to establish and alter the system.

During the reporting period, the Town of Erin – Hillsburgh Well Supply was operated pursuant to:

- Municipal Drinking Water License Number 102-102, issued December 1, 2015
- Drinking Water Works Permit Number 102-202, issued December 1, 2015

Both our license and our permit were issued through our demonstration of compliance to the Drinking Water Quality Management Standard (DWQMS).

DWQMS

The Standard contains 21 Elements which specify the minimum requirements for the Quality Management System of an Operating Authority for a subject system:

- a. to facilitate the Operating authority's ability to consistently produce and/or deliver drinking water that meets applicable legislative, regulatory and Owner requirements, and
- b. to enhance consumer protection through the effective application and continual improvement of the Quality Management System.

Operational Plan

Our adopted Quality Management System (QMS) Operational Plan continues to govern the water system in assuring conformance to the Standard and continuous operational improvements.

A portion of this required conformance is included in the Financial Plan submitted under O. Reg. 453/07. We must fulfill our submitted financial commitment to infrastructure renewal and utility operations in a demonstrated life cycle based full cost recovery model.

Copies of our QMS Operational Plan are available at the Municipal Office.

Section 3 – External Audit & MOE Inspections

On November 30, 2016 the Ministry of Environment and Climate Change conducted an unannounced inspection of the Hillsburgh Well Supply System for the period of May 15, 2015 – November 20, 2016. The inspection included a review of operational standards and procedures, record keeping, sampling protocols, status of operator's licensing, training initiatives and a random field test for the analysis of system free chlorine residual in conjunction with joint microbiological water sample collections.

This inspection provided a scoring of 100% in meeting all legislative requirements of the *Safe Drinking Water Act* and associated regulations under the act.

The summary of best practice issues and recommendation, and the final inspection scoring for this inspection period are included in Appendix 3.

On November 15th, 2016 SAI Global conducted an external off-site system verification audit of the Town of Erin's Quality Management System. This audit resulted in zero non-conformances and one opportunity for improvement. SAI Global's recommendation is: Maintenance of existing accreditation. The results of the external off-site system verification audit are included in Appendix 4.

Section 4 – Statement of Compliance

The Hillsburgh Well Supply System complied with the terms and conditions of all Licenses and Permits, Ontario Drinking Water Quality Standards Regulation (O. Reg. 169/03), and the Drinking Water Systems Regulation (O. Reg. 170/03).

Section 5 – Summaries of Quantities and Flow Rates and Water Supply

The following table is a summary of flows for the reporting period of January 1 – December 31, 2016.

Table 1

HH	Total Flow		Average Day		Max Day		Max Flow Rate	
	Raw m ³	Treated m ³	Raw m ³	Treated m ³	Raw m ³ (rated capacity = 982 m ³ /day)	Treated m ³ (rated capacity = 1011 m ³ /day)	Raw L/min (rated capacity = 682 L/min)	Treated L/sec
January	1862.18	1180.34	60.07	38.08	213.91	51.91	659.07	4.71
February	1918.67	1045.83	66.16	36.06	213.70	52.22	660.94	8.42
March	1911.70	1085.17	61.67	35.01	212.38	91.15	659.85	4.60
April	1668.28	1021.50	55.61	34.05	212.57	55.01	658.56	7.29
May	2371.89	1719.86	76.51	55.48	228.61	104.31	656.44	24.22
June	3384.79	2823.01	112.83	94.10	232.01	168.37	651.70	28.51
July	3143.18	2890.97	101.39	93.26	210.42	173.75	647.64	20.26
August	3077.51	2652.83	99.27	85.58	210.78	164.72	625.26	35.49
September	1866.44	1616.31	62.21	53.88	199.61	100.33	618.65	16.75
October	2583.88	2344.35	83.35	75.62	209.22	142.78	561.03	7.53
November	1664.68	1068.36	55.49	35.61	185.84	62.71	574.81	3.06
December	2341.42	1728.43	75.53	55.76	205.52	79.74	620.22	2.97
Total	27794.62	21176.96						
GD	Total Flow		Average Day		Max Day		Max Flow Rate	
	Raw m ³	Treated m ³	Raw m ³	Treated m ³	Raw m ³ (rated capacity = 655 m ³ /day)	Treated m ³ (rated capacity = 654 m ³ /day)	Raw L/min (rated capacity = 454 L/min)	Treated L/min
January	2120.57	2360.54	68.41	76.15	86.94	94.42	402.98	205.05
February	2052.36	2289.47	70.77	78.95	91.91	102.77	392.78	723.04
March	2322.55	2565.81	74.92	82.77	99.96	106.71	415.83	354.68
April	2670.10	2953.12	89.00	98.44	137.80	150.10	404.33	618.97
May	3634.33	3974.79	117.24	128.22	179.26	190.05	401.36	592.20
June	3531.26	3792.88	117.71	126.43	215.80	220.03	397.75	702.70
July	3701.77	3854.63	119.41	124.34	185.22	182.11	393.10	711.58
August	2513.04	2599.85	81.07	83.87	196.01	146.77	425.00	723.21
September	2465.46	2551.39	82.18	85.05	142.70	136.73	427.80	719.48
October	1710.56	1392.59	55.18	44.92	239.51	106.85	452.67	236.83
November	2323.73	2401.19	77.46	80.04	120.20	112.60	430.44	390.48
December	2688.99	2732.10	86.74	88.13	132.33	107.79	426.73	207.25
Total	31734.72	33468.36						

The following table is a summary of the flow rates and the rated capacity flow rates approved in the system's approval.

Table 2

HH	Peak Day Flow (m ³ /day)		Rated Capacity (m ³ /day)		Percent Rated Capacity (%)	
	Raw	Treated	Raw	Treated	Raw	Treated
January	213.91	51.91	982	1011	21.8%	5.1%
February	213.70	52.22	982	1011	21.8%	5.2%
March	212.38	91.15	982	1011	21.6%	9.0%
April	212.57	55.01	982	1011	21.6%	5.4%
May	228.61	104.31	982	1011	23.3%	10.3%
June	232.01	168.37	982	1011	23.6%	16.7%
July	210.42	173.75	982	1011	21.4%	17.2%
August	210.78	164.72	982	1011	21.5%	16.3%
September	199.61	100.33	982	1011	20.3%	9.9%
October	209.22	142.78	982	1011	21.3%	14.1%
November	185.84	62.71	982	1011	18.9%	6.2%
December	205.52	79.74	982	1011	20.9%	7.9%

Table 2 Continued

GD	Peak Day Flow (m ³ /day)		Rated Capacity (m ³ /day)		Percent Rated Capacity (%)	
	Raw	Treated	Raw	Treated	Raw	Treated
January	86.94	94.42	655	654	13.3%	14.4%
February	91.91	102.77	655	654	14.0%	15.7%
March	99.96	106.71	655	654	15.3%	16.3%
April	137.80	150.10	655	654	21.0%	23.0%
May	179.26	190.05	655	654	27.4%	29.1%
June	215.80	220.03	655	654	32.9%	33.6%
July	185.22	182.11	655	654	28.3%	27.8%
August	196.01	146.77	655	654	29.9%	22.4%
September	142.70	136.73	655	654	21.8%	20.9%
October	239.51	106.85	655	654	36.6%	16.3%
November	120.20	112.60	655	654	18.4%	17.2%
December	132.33	107.79	655	654	20.2%	16.5%

Section 6 – Summary and Conclusion

Table 3 provides information with respect to the quantity and flow rates of water supplied to the system during the reporting period.

1. The monthly average taking for all wells individually and for all wells combined, the maximum daily taking from each well individually, and the daily instantaneous peak flow rate for each well. There are footnotes to the table that provide additional information regarding the data.

Table 3
Town of Erin, Hillsburgh Well Supply
Pumping Volume % Flow Summary
(January 1 to December 31, 2016)

Raw Well	Monthly Average (m ³ /mo.)	Approved Rated Capacity (m ³ /month)	Maximum Daily Flow (m ³ /day)	Approved Rated Capacity (m ³ /day) ¹	Maximum Daily Instantaneous Peak Flow Rate (L/min.)	Approved Rated Capacity (L/min.) ¹
<i>HH</i>	2,316.22	29869	232.01	982	161.48	682
<i>GD</i>	2,644.56	19923	239.51	655	167.25	454
Combined Wells:	4,960.78	49792		1,637	N/A	N/A

1. Based on water taking rates and amounts specified in Table A of PTTW # 8548-6SBGWC, PTTW # 7740 – A9ZNTP & PTTW # 6306-8X5KRY

In conclusion, HH is pumping at an 7.8% average of the approved rated capacity of 29,869 m³ per month, and GD is pumping at a 13.3% average of the approved rated capacity of 19,923 m³ per month. The Hillsburgh Well Supply system is pumping at an average 10.0% of the approved rated capacity of 49,792 m³ per month.

This report will be given to the members of the Town of Erin Council on or before March 31, 2017, as required by Section 22-2 (1) (a) of Schedule 22 of O. Reg 170/03, as amended. It will be circulated to Council as an information item on the first available agenda following the date completed to formally put the report on the public record. The report is available to the public at no cost, and will be posted on the Town's website.

Appendix 1
SCHEDULE 22
SUMMARY REPORTS FOR MUNICIPALITIES

Municipal: Large Residential
Small Residential

Application

22-1. This Schedule applies to the following drinking water systems:

1. Large municipal residential systems.
2. Small municipal residential systems.

Report

22-2. (1) The owner of a drinking water system shall ensure that, not later than March 31 of each year after 2003, a report is prepared in accordance with subsections (2) and (3) for the preceding calendar year and is given to,

- (a) in the case of a drinking water system owned by a municipality, the members of the municipal council;
- (b) in the case of a drinking water system owned by a municipal service board established under section 195 of the *Municipal Act, 2001*, the members of the municipal service board; or
- (c) in the case of a drinking water system owned by a corporation, the board of directors of the corporation.

(2) The report must,

- (a) list the requirements of the Act, the regulations, the system's approval, drinking water works permit, municipal drinking water licence, and any orders applicable to the system that were not met at any time during the period covered by the report; and
- (b) for each requirement referred to in clause (a) that was not met, specify the duration of the failure and the measures that were taken to correct the failure.

(3) The report must also include the following information for the purpose of enabling the owner of the system to assess the capability of the system to meet existing and planned uses of the system:

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

(4) If a report is prepared under subsection (1) for a system that supplies water to a municipality under the terms of a contract, the owner of the system shall give a copy of the report to the municipality by March 31.

(5) Revoked: O. Reg. 253/05, s. 18.

OWRA approvals

22-3. A provision of an OWRA approval that requires the completion and presentation of a compliance report does not apply to a drinking water system if the owner of the system complies with section 22-2.

O. Reg. 170/03, Sched. 22; O. Reg. 249/03, s. 24; O. Reg. 253/05, s. 18; O. Reg. 418/09, s. 26.

Appendix 2

Regulations under the *Safe Drinking Water Act, 2002*

- O. Reg. 128/04: Certification of Drinking Water System Operators and Water Quality Analysts
- O. Reg. 169/03: Ontario Drinking Water Quality Standards
- O. Reg. 170/03: Drinking Water Systems
- O. Reg. 171/03: Definitions of Words and Expressions Used in the Act
- O. Reg. 172/03: Definitions of Deficiency and Municipal Drinking Water System
- O. Reg. 188/07: Licensing of Municipal Drinking Water Systems
- O. Reg. 242/05: Compliance and Enforcement
- O. Reg. 243/07: Schools Private Schools and Day Nurseries
- O. Reg. 248/03: Drinking Water Testing Services
- O. Reg. 453/07: The Financial Plans Regulation
- O. Reg. 229/07: Service of Documents

Appendix 3



SUMMARY OF RECOMMENDATIONS AND BEST PRACTICE ISSUES

This section provides a summary of all recommendations and best practice issues identified during the inspection period. Details pertaining to these items can be found in the body of the inspection report. In the interest of continuous improvement in the interim, it is recommended that owners and operators develop an awareness of the following issues and consider measures to address them.

Not Applicable

Ministry of the Environment - Inspection Summary Rating Record (Reporting Year - 2016-2017)

DWS Name: HILLSBURGH DRINKING WATER SYSTEM
DWS Number: 220007285
DWS Owner: Erin, The Corporation Of The Town Of
Municipal Location: Erin

Regulation: O.REG 170/03
Category: Large Municipal Residential System
Type Of Inspection: Focused
Inspection Date: November 30, 2016
Ministry Office: Guelph District

Maximum Question Rating: 421

Inspection Module	Non-Compliance Rating
Source	0 / 28
Capacity Assessment	0 / 30
Treatment Processes	0 / 56
Operations Manuals	0 / 28
Logbooks	0 / 14
Certification and Training	0 / 28
Water Quality Monitoring	0 / 104
Reporting & Corrective Actions	0 / 21
Treatment Process Monitoring	0 / 112
TOTAL	0 / 421

Inspection Risk Rating 0.00%

FINAL INSPECTION RATING: 100.00%

Inspection Rating Record Generated On 22-DEC-16 (Inspection ID: 1-CLNBL).

Appendix 4



1631559-01
#DWAR.12.08 Rev.01

ACCREDITATION PROGRAM FOR OPERATING AUTHORITIES SYSTEMS VERIFICATION AUDIT REPORT – 2016

FILE #: 1631559-01

**The Corporation of the Town of Erin
OAP 102**

Operating Authority for:

Erin Drinking Water System
Hillsburgh Drinking Water System

12 Month Surveillance Audit

Prepared by: Janet McKenzie

Date: Nov 15, 2016

Confidential
20 Carlson Court, Suite 200
Toronto, Ontario Canada M9W 7K6
Telephone: 416-401-8700 Facsimile: 416-401-8650

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Audit Objectives

The objective of the audit was to determine whether the drinking water Quality Management System (QMS) of the subject system conforms to the requirements of the Ontario Ministry of the Environment's (MOE) Drinking Water Quality Management Standard (DWQMS) at all of the locations noted in the Applicant Profile Form (AP 602). It was also intended to gather the information necessary for SAI Global to assess whether accreditation can be offered to the operating authority.

Audit Scope

The facilities and processes associated with the operating authority's QMS were objectively evaluated to obtain audit evidence and to determine a) whether the quality management activities and related results conform with DWQMS requirements, and b) if they have been effectively implemented.

Audit Criteria:

- The Drinking Water Quality Management Standard
- Current QMS manuals, procedures and records implemented by the Operating Authority
- SAI Global Accreditation Program Handbook

Auditor:

Janet McKenzie

Audit Report Distribution List:

The Audit Report is distributed as follows:

- Operating Authority
- Owner
- Ministry of the Environment Director

Confidentiality and Documentation Requirements

The SAI Global stores their records and reports to ensure their preservation and confidentiality. Unless required by law, the SAI Global will not disclose audit records to a third party without prior written consent of the applicant. The only exception will be that the SAI Global will provide audit and corrective action reports to the Ontario Ministry of the Environment. For more information, please refer to the SAI Global Accreditation Program Handbook.

PART A. MANAGEMENT SUMMARY

This was an off-site system audit of the The Corporation of the Town of Erin conformance with the requirements of DWQMS: Oct. 2006.

The overall effectiveness of the The Corporation of the Town of Erin Quality Management System is considered:

- Effective**
- Not effective**

Zero non-conformities and one (1) Opportunity for Improvement were identified during this assessment, as noted in Part D of this report.

The audit objectives have been accomplished within the audit scope in accordance with the audit plan and the time allocation.

Notes

Copies of this report distributed outside the organization must include all pages.

As part of the SAI Global Terms, it is necessary for you to notify the SAI Global of any changes to your Quality Management System that you believe are significant enough to risk non-conformity with DWQMS: Oct. 2006. For more information, please refer to the SAI Global Accreditation Program Handbook.

PART B. GENERAL INFORMATION

Operating Authority:

Legal name and address The Corporation of the Town of Erin OAP 102

Address 5684 Trafalgar Road Hillsburgh Ontario

Applicant representative Sara McDougall

Title Compliance Administrator

Telephone 519 855 4407 Fax 519 855 4821

E-mail sara.mcdougall@erin.ca

Owner:

Legal name and address
 same as above, or:

Applicant representative Sara McDougall

Title Compliance Administrator

Telephone 519 855 4407 «CIS13» Fax 519 855 4821

E-mail sara.mcdougall@erin.ca

Accreditation Option: Full Scope - Entire DWQMS


Population Serviced: 3,300

This audit report covers the subject systems listed:

Erin Drinking Water System, 5555 - 8th Line, Erin - Drinking Water Treatment and Distribution Processes

Hillsburgh Drinking Water System, 5929 Trafalgar Road, Hillsburgh - Drinking Water Treatment and Distribution Processes

PART C. SUMMARY OF FINDINGS

SUMMARY OF FINDINGS							
OPERATING AUTHORITY The Corporation of the Town of Erin OAP 102					1631559-01		
ACCREDITATION CYCLE: 12 Month Surveillance Audit							
AUDIT TYPE <input checked="" type="checkbox"/> Systems			AUDITOR Janet McKenzie		Nov 15, 2016 to Nov 15, 2016		
SUBJECT SYSTEM(S) AUDITED ① Erin Drinking Water System ② Hillsburgh Drinking Water System							
REQUIREMENT ↓	SYSTEM →	①	②	③	④	⑤	⑥
1. Quality Management System		C					
2. Quality Management System Policy							
3. Commitment and Endorsement		C					
4. Quality Management System Representative		C					
5. Document and Records Control		C					
6. Drinking-Water System							
7. Risk Assessment		OFI					
8. Risk Assessment Outcomes		C					
9. Organizational Structure, Roles, Responsibilities and Authorities							
10. Competencies		C					
11. Personnel Coverage		C					
12. Communications		C					
13. Essential Supplies and Services		C					
14. Review and Provision of Infrastructure							
15. Infrastructure Maintenance, Rehabilitation & Renewal							
16. Sampling, Testing and Monitoring		C					
17. Measurement & Recording Equipment Calibration and Maintenance		C					
18. Emergency Management		C					
19. Internal Audits		C					
20. Management Review		C					
21. Continual Improvement		C					
Mj	Major non-conformity. The auditor has determined one of the following: (a) a required element of the DWQMS has not been incorporated into a QMS; (b) a systemic problem with a QMS is evidenced by two or more minor non-conformities; or (c) a minor non-conformity identified in a corrective action request has not been remedied.						
Mn	Minor non-conformity. In the opinion of the auditor, part of a required element of the DWQMS has not been incorporated satisfactorily into a QMS.						
OFI	Opportunity for improvement. Conforms to the requirement, but there is an opportunity for improvement.						
C	Conforms to requirement.						
	Not applicable to this audit.						
*	Additional comment added by auditor in the body of the report.						

PART D. FINDINGS/COMMENTS

DWQMS Reference: 7 Risk Assessment
Client Reference: Town of Erin DWQMS Operational Plan, rev#15, July 13, 2016.
Section 7.0- Risk assessment
Appendix 14, rev6. Risk Assessment Procedure

Results: **Opportunity for improvement**
Details: *Consider revising Appendix 14, subsection 5.16 to specify that the risk assessment is conducted at least once every thirty-six months rather than once every 3 years.*

PART E. RECOMMENDATION – Systems Audit

The auditor recommends the following:

- Offer of accreditation
- Offer of accreditation after response to corrective action requests has been deemed acceptable to the SAI Global
- On-site verification audit after response to corrective action requests has been deemed acceptable by the SAI Global
- On-site verification audit as next step in the accreditation process
- On-site verification of corrective action requests
- Maintenance of existing accreditation**
- Complete re-assessment

Final comments: Well maintained system.



E-signature of Lead Auditor / Auditor

