

**SUMMARY REPORT  
TOWN OF ERIN**

**ERIN WELL SUPPLY  
DRINKING –WATER SYSTEM NO. 220000013**

Municipal Drinking Water License Number 102-101  
Drinking Water Works Permit Number 102-201

PTTW# 8112-9CPNNW



**Submitted by:** Joe Babin  
Water Superintendent

**Signature:** A handwritten signature in cursive script that reads "Joseph Babin". The signature is written in black ink and is positioned above a horizontal line.

**Date:** January 23, 2017

**Prepared by:** Sara McDougall

# SUMMARY REPORT FOR THE TOWN OF ERIN ERIN WELL SUPPLY

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Ministry of Environment and Climate Change  
Municipal Drinking Water License Number 102-101  
Drinking Water Works Permit Number 102-201

PTTW# 8112-9CPNNW

## Table of Contents

Section 1 – Introduction .....	2
Section 2 – Background .....	2
Section 3 – External Audit & MOE Inspections .....	3
Section 4 – Statement of Compliance .....	3
Section 5 – Summaries of Quantities and Flow Rates and Water Supply .....	4
Section 6 – Summary and Conclusion .....	5
Appendix 1- O. Reg. 170/03 Schedule 22 .....	6
Appendix 2 - Regulations under the <i>Safe Drinking Water Act, 2002</i> .....	7
Appendix 3 - MOECC Inspection Results and Scoring .....	8
Appendix 4 - SAI Global External 12 Month Surveillance Audit Results.....	10

## **Section 1 – Introduction**

The 2016 Erin 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 - Erin Well Supply is considered to be a large municipal residential system.

The summary report identifies Erin 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 1<sup>st</sup> to December 31<sup>st</sup>, 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 – Erin Well Supply was operated pursuant to:

- Municipal Drinking Water License Number 102-101, issued December 1, 2015
- Drinking Water Works Permit Number 102-201, 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 & MOECC Inspections**

On November 1, 2016 the Ministry of Environment and Climate Change (MOECC) conducted an announced inspection of the Erin Well Supply System for the period of June 1, 2015 – October 30, 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 final inspection scoring and summary of best practice issues and recommendations for this inspection period are included in Appendix 3.

On November 15<sup>th</sup>, 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 Erin 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) except for on February 25, 2016 the maximum flow rate of 1,786.32 L/min exceeded the PTTW rated capacity of 1,640 L/min at Erin Well # 8 (E8). This was due to annual flow meter calibrations and was documented by the operator on site.

## 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

E7	Total Flow		Average Day		Max Day		Max Flow Rate	
	Date	Raw m <sup>3</sup>	Treated m <sup>3</sup>	Raw m <sup>3</sup>	Treated m <sup>3</sup>	Raw m <sup>3</sup> (rated capacity = 2160 m <sup>3</sup> /day)	Treated m <sup>3</sup> (rated capacity = 2592 m <sup>3</sup> /day)	Raw L/min (rated capacity = 1,800 L/min)
January	8458.57	8509.90	272.86	274.51	529.13	576.98	1437.12	2202.72
February	9299.19	9486.65	320.66	327.13	701.98	708.96	1434.72	1471.92
March	7292.52	7379.89	270.09	273.33	545.53	573.26	1443.12	1839.12
April	9393.86	9508.81	313.13	316.96	686.98	687.53	1418.40	1497.84
May	9461.04	9575.91	305.20	308.90	887.52	935.73	1422.48	1490.64
June	14793.51	14938.90	493.12	497.96	1621.37	1614.91	1408.08	1546.56
July	14554.67	14799.55	469.51	477.40	1398.82	1441.24	1413.36	1544.64
August	11588.80	11683.28	373.83	376.88	1088.32	1031.84	1404.00	1503.36
September	9469.26	9554.65	315.64	318.49	722.07	762.52	1426.56	1509.60
October	7609.92	7669.75	245.48	247.41	673.94	702.91	1402.56	1601.76
November	8728.90	8854.56	290.96	295.15	934.66	895.32	1430.88	1526.16
December	11989.75	12073.63	386.77	389.47	788.19	778.11	1405.44	1924.80
Total	122640	124035.5						
E8	Total Flow		Average Day		Max Day		Max Flow Rate	
	Date	Raw m <sup>3</sup>	Treated m <sup>3</sup>	Raw m <sup>3</sup>	Treated m <sup>3</sup>	Raw m <sup>3</sup> (rated capacity = 1968 m <sup>3</sup> /day)	Treated m <sup>3</sup> (rated capacity = 2362 m <sup>3</sup> /day)	Raw L/min (rated capacity = 1,640 L/min)
January	13221.57	13190.77	426.50	425.51	741.02	719.91	1268.64	1026.00
February	12135.11	12111.88	418.45	417.65	789.22	796.07	1786.32	1026.00
March	13192.39	13261.37	454.91	457.29	766.78	780.22	1269.84	1098.24
April	13235.17	13189.35	441.17	439.65	794.58	802.25	1270.32	1018.32
May	13591.90	13589.35	438.45	438.37	957.66	976.52	1268.40	1024.08
June	17116.61	17170.48	570.55	572.35	1408.37	1396.78	1282.08	1014.24
July	17433.22	17430.10	562.36	562.26	1400.20	1386.94	1255.92	1031.28
August	12840.50	12805.33	414.21	413.08	1220.64	922.43	1259.76	1032.96
September	13186.83	13182.15	439.56	439.41	900.07	886.59	1257.36	1032.96
October	12208.25	12221.57	393.81	394.24	674.13	684.40	1260.48	1026.00
November	9724.29	9712.41	324.14	323.75	635.59	632.37	1259.04	1400.16
December	10045.68	10100.30	324.05	325.82	992.57	925.84	1258.08	1010.16
Total	157931.5	157965.1						

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

Table 2

E7	Peak Day Flow (m <sup>3</sup> /day)		Rated Capacity (m <sup>3</sup> /day)		Percent Rated Capacity (%)	
	Raw	Treated	Raw	Treated	Raw	Treated
January	529.13	576.98	2160	2592	24.5%	22.3%
February	701.98	708.96	2160	2592	32.5%	27.4%
March	545.53	573.26	2160	2592	25.3%	22.1%
April	686.98	687.53	2160	2592	31.8%	26.5%
May	887.52	935.73	2160	2592	41.1%	36.1%
June	1621.37	1614.91	2160	2592	75.1%	62.3%
July	1398.82	1441.24	2160	2592	64.8%	55.6%
August	1088.32	1031.84	2160	2592	50.4%	39.8%
September	722.07	762.52	2160	2592	33.4%	29.4%
October	673.94	702.91	2160	2592	31.2%	27.1%
November	934.66	895.32	2160	2592	43.3%	34.5%
December	788.19	778.11	2160	2592	36.5%	30.0%

Table 2 continued

E8	Peak Day Flow (m <sup>3</sup> /day)		Rated Capacity (m <sup>3</sup> /day)		Percent Rated Capacity (%)	
	Raw	Treated	Raw	Treated	Raw	Treated
January	741.02	719.91	1968	2362	37.7%	30.5%
February	789.22	796.07	1968	2362	40.1%	33.7%
March	766.78	780.22	1968	2362	39.0%	33.0%
April	794.58	802.25	1968	2362	40.3%	34.0%
May	957.66	976.52	1968	2362	48.7%	41.3%
June	1408.37	1396.78	1968	2362	71.6%	59.1%
July	1400.20	1386.94	1968	2362	71.1%	58.7%
August	1220.64	922.43	1968	2362	62.0%	39.1%
September	900.07	886.59	1968	2362	45.7%	37.5%
October	674.13	684.40	1968	2362	34.3%	29.0%
November	635.59	632.37	1968	2362	32.3%	26.8%
December	992.57	925.84	1968	2362	50.4%	39.2%

## 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, Erin Well Supply**  
**Pumping Volume % Flow Summary**  
*(January 1 to December 31, 2016)*

Raw Well	Monthly Average (m <sup>3</sup> /mo.)	Approved Rated Capacity (m <sup>3</sup> /month)	Maximum Daily Flow (m <sup>3</sup> /day)	Approved Rated Capacity (m <sup>3</sup> /day) <sup>1</sup>	Maximum Daily Instantaneous Peak Flow Rate (L/min.)	Approved Rated Capacity (L/min.) <sup>1</sup>
<i>E7</i>	10,220.00	<b>65,700</b>	1,621.37	<b>2,160</b>	1,376.48	<b>1,800</b>
<i>E8</i>	13,160.96	<b>59,860</b>	1,408.37	<b>1,968</b>	1,227.78	<b>1,640</b>
<b>Combined Wells:</b>	23,380.96	<b>125,560</b>		<b>4,128</b>	N/A	N/A

1. Based on water taking rates and amounts specified in Table A of PTTW # 8112-9CPNNW.

In conclusion, E7 is pumping at a 15.6% average of the approved rated capacity of 65,700 m<sup>3</sup> per month, and E8 is pumping at a 22.0% average of the approved rated capacity of 59,860 m<sup>3</sup> per month. The Erin Well Supply system is pumping at an average of 18.6% of the approved rated capacity of 125,560 m<sup>3</sup> 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*

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- 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)**

<b>DWS Name:</b>	ERIN DRINKING WATER SYSTEM
<b>DWS Number:</b>	220000013
<b>DWS Owner:</b>	Erin, The Corporation Of The Town Of
<b>Municipal Location:</b>	Erin
<b>Regulation:</b>	O.REG 170/03
<b>Category:</b>	Large Municipal Residential System
<b>Type Of Inspection:</b>	Detailed
<b>Inspection Date:</b>	November 1, 2016
<b>Ministry Office:</b>	Guelph District

**Maximum Question Rating: 676**

<b>Inspection Module</b>	<b>Non-Compliance Rating</b>
Source	0 / 40
Permit To Take Water	0 / 12
Capacity Assessment	0 / 42
Treatment Processes	0 / 72
Distribution System	0 / 25
Operations Manuals	0 / 42
Logbooks	0 / 30
Certification and Training	0 / 57
Water Quality Monitoring	0 / 148
Reporting & Corrective Actions	0 / 88
Treatment Process Monitoring	0 / 120
<b>TOTAL</b>	<b>0 / 676</b>

**Inspection Risk Rating 0.00%**

**FINAL INSPECTION RATING: 100.00%**

Inspection Rating Record Generated On 19-DEC-16 (Inspection ID: 1-CLN9B).

## 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  
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Page 1 of 11

Excellence.Assured.

### **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 Served: 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					
<b>Mj</b>	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.						
<b>Mn</b>	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.						
<b>OFI</b>	Opportunity for improvement. Conforms to the requirement, but there is an opportunity for improvement.						
<b>C</b>	Conforms to requirement.						
<b>///</b>	Not applicable to this audit.						
<b>*</b>	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

