



# Town of St. Marys Water Operations Report 2018 FIRST QUARTER

Submitted by:  
Ontario Clean Water Agency  
Date: January 1-March 31, 2018

### **Facility Description**

Facility Name: St. Marys Water Treatment Plant  
Senior Operations Manager: Renee Hornick (519) 274-0997  
Business Development Manager: Jackie Muller (519) 643-8660  
Facility Type: Municipal  
Classification: Class 2 Water Distribution and Supply  
Title Holder: The Corporation of the Town of St. Marys

### **Service Information**

Area(s) Serviced: Separated Town of St. Marys  
Population Serviced: 7,200

### **Capacity Information – Well No. 1**

Total Design Capacity: 5,184 (m<sup>3</sup>/day)  
Total Annual Flow (2017 Data): 400,530.82 (m<sup>3</sup>/year)  
Average Day Flow (2017 Data): 1,098.9 (m<sup>3</sup>/day)  
Maximum Day Flow (2017 Data): 3,172.84 (m<sup>3</sup>/day)

### **Capacity Information – Well No. 2A**

Total Design Capacity: 5,184 (m<sup>3</sup>/day)  
Total Annual Flow (2017 Data): 409,278.8 (m<sup>3</sup>/year)  
Average Day Flow (2017 Data): 1,119.97 (m<sup>3</sup>/day)  
Maximum Day Flow (2017 Data): 3,214.38 (m<sup>3</sup>/day)

### **Capacity Information – Well No. 3**

Total Design Capacity: 5,184 (m<sup>3</sup>/day)  
Total Annual Flow (2017 Data): 181,068.52 (m<sup>3</sup>/year)  
Average Day Flow (2017 Data): 495.19 (m<sup>3</sup>/day)  
Maximum Day Flow (2017 Data): 3,044.95 (m<sup>3</sup>/day)

### **Operational Description**

Each of the Pump Houses No. 1, 2A and 3 houses a vertical turbine pump, each rated at 60L/s capacity. These draw water from the three wells. Water passes through the air release valves, a backflow check valve, pressure gauges, the primary UV light disinfection unit, flow meter, the chlorine gas injection point, and actuator control valve and then into the contact chamber piping located underground.

**COMPLIANCE AND EXCEEDANCES SUMMARY:**

There have been no compliance or exceedance issues to date.

**OCCUPATIONAL HEALTH & SAFETY:**

There have been no health and safety issues to date.

**GENERAL MAINTENANCE AND PLANT ACTIVITIES:**

General maintenance includes monthly generator tests, greasing equipment and preventative maintenance.

**FIRST QUARTER****January**

02: Booster Station – ESA inspection  
17: Well 2A – Electrician onsite working on surge protection  
23: Well 2A – Replaced faucet on site  
24: Well 2A – Replaced ballast on overhead lights  
24: Well 3 – Replaced plunger for chlorine regulator  
26: Well 3 – Installed new toilet

**February**

08: Well 2A – Regular heater regulator maintenance  
16: Well 1 – Electrician onsite troubleshooting chlorine vacuum

**March**

13: Well 1 – Electrician onsite to troubleshoot alarm system. Changed control relay in PLC

PREVENTATIVE MAINTENANCE WORK ORDERS GENERATED												
JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
51	37	40										128

All work orders were completed on schedule.

**DISTRIBUTION WORK:**

Location	Date
2' piece of pipe replaced at James Street South Contractor directionally bored through the pipe	January 28, 2018
Hydrant replacement at Stations Street and Church Street	February 1, 2018
Service replacement at 116 Jardine Street	March 12, 2018

**ALARMS / CALL-INS:****FIRST QUARTER****January**

23: Well 3 – Received a call for a low chlorine alarm – it was determined it was caused by a faulty regulator

**March**

**04:** Water turn off/turn on at 146 Victoria Street

**08:** Water leak at 573 Queen Street East – it was determined that the issue was on the private side of the service

**08:** Water leak at 116 Jardine Street – chlorine residual was taken (0.64 mg/l) and the repair took place on March 12

**13:** Well 3 – Received a call for a high turbidity alarm

**16:** Well 1 – Received a call for a low chlorine alarm

**28:** Emergency locate at Emily Street for Rogers

**29:** Well 3 – Received a call for a UV alarm

**COMPLAINTS & CONCERNS:**

There have been no complaints or concerns reported to date.

**DWQMS UPDATE:**

Management Review – May 9, 2017

Internal Audit – May 1, 2017

External Audit – September 19, 2017

Risk Assessment – March 13, 2017

Accreditation Status – Full Scope Entire Accreditation Expires December 31, 2019

**REGULATORY INSPECTIONS:**

The last MOECC Inspection occurred on June 28, 2017

**APPENDIX A – PERFORMANCE ASSESSMENT REPORT:**

See attached.

# **APPENDIX A**

## **PERFORMANCE ASSESSMENT REPORT**

Ontario Clean Water Agency  
Performance Assessment Report Water

Report extracted 04/20/2018 15:17

From: 01/01/2018 to 31/03/2018

Facility: [1262] ST MARYS DRINKING WATER SYSTEM

Works: [220000521]

	01/2018	02/2018	03/2018	<--Total-->	<--Avg.-->	<--Max.-->	<--Min.-->
<b>Flows:</b>							
Raw Flow: Monthly Total - Well #1 (m³)	39417.85	32695.61	47966.84	120080.3			
Raw Flow: Monthly Avg - Well #1 (m³/d)	1271.54	1362.32	1713.1		1448.99		
Raw Flow: Monthly Max - Well #1 (m³/d)	2748.44	2549.17	2655.09			2748.44	
Raw Flow: Monthly Total - Well #2 (m³)	27211.39	21449.46	1192.96	49853.81			
Raw Flow: Monthly Avg - Well #2 (m³/d)	877.79	1191.64	596.48		888.63		
Raw Flow: Monthly Max - Well #2 (m³/d)	2363.51	2451.65	970.43			2451.65	
Raw Flow: Monthly Total - Well #3 (m³)	17464.68	18942.6	35201.93	71609.21			
Raw Flow: Monthly Avg - Well #3 (m³/d)	563.38	996.98	1676.28		1078.88		
Raw Flow: Monthly Max - Well #3 (m³/d)	1888.84	2079.79	3011.42			3011.42	
Raw Flow: Monthly Total - Total Raw Flow (m³)	84093.92	73087.67	16175.03	173356.62			
Raw Flow: Monthly Avg - Total Raw Flow (m³/d)	2712.71	2610.27	2695.84		2672.94		
Raw Flow: Monthly Max - Total Raw Flow (m³/d)	3981.63	3211.92	3094.89			3981.63	
<b>Turbidity:</b>							
Raw: Max Turbidity - Well #1 (NTU)	0.3	0.52	0.14			0.52	
Raw: Max Turbidity - Well #2 (NTU)	0.16	0.22	0.18			0.22	
Raw: Max Turbidity - Well #3 (NTU)	0.77	0.43	0.1			0.77	
<b>Chemical Parameters:</b>							
Treated: Max Nitrite - Treated Water #1 (mg/L)	< 0.003					< 0.003	
Treated: Max Nitrate - Treated Water #1 (mg/L)	1.47					1.47	
Treated: Max Nitrite - Treated Water #2 (mg/L)	< 0.003					< 0.003	
Treated: Max Nitrate - Treated Water #2 (mg/L)	0.634					0.634	
Treated: Max Nitrite - Treated Water #3 (mg/L)	< 0.003					< 0.003	
Treated: Max Nitrate - Treated Water #3 (mg/L)	0.526					0.526	
Distribution: Max THM - Distribution System (µg/l)	13					13	
<b>Chlorine Residuals:</b>							
Treated: Min Free Cl2 Resid - Treated Water #1 (mg/L)	0.85	0.76	0.75				0.75
Treated: Max Free Cl2 Resid - Treated Water #1 (mg/L)	1.26	1.3	1.35			1.35	
Treated: Min Free Cl2 Resid - Treated Water #2 (mg/L)	0.67	0.81	0.88				0.67
Treated: Max Free Cl2 Resid - Treated Water #2 (mg/L)	1.19	1.38	1.32			1.38	
Treated: Min Free Cl2 Resid - Treated Water #3 (mg/L)	0.85	0.88	0.87				0.85
Treated: Max Free Cl2 Resid - Treated Water #3 (mg/L)	1.28	1.36	1.45			1.45	
<b>Bacti Samples Collected:</b>							
Raw Bacti: # of samples - Well #1	5	4	4	13			
Treated Bacti: # of samples - Treated Water #1	5	4	4	13			
Raw Bacti: # of samples - Well #2	5	4	1	10			
Treated Bacti: # of samples - Treated Water #2	5	4	1	10			
Raw Bacti: # of samples - Well #3	5	4	4	13			
Treated Bacti: # of samples - Treated Water #3	5	4	4	13			
Dist Bacti: # of samples - Distribution System	20	16	16	52			
Treated Bacti: # of TC exceedances - Treated Water #1	0	0	0	0			
Treated Bacti: # of EC exceedances - Treated Water #1	0	0	0	0			
Treated Bacti: # of TC exceedances - Treated Water #2	0	0	0	0			
Treated Bacti: # of EC exceedances - Treated Water #2	0	0	0	0			
Treated Bacti: # of TC exceedances - Treated Water #3	0	0	0	0			
Treated Bacti: # of EC exceedances - Treated Water #3	0	0	0	0			
Dist Bacti: # of TC exceedances - Distribution System	0	0	0	0			
Dist Bacti: # of EC exceedances - Distribution System	0	0	0	0			