



Ontario Clean Water Agency
Agence Ontarienne Des Eaux

1266 West Elgin Distribution System
Operations Report
First Quarter 2022

Ontario Clean Water Agency, Southwest Region
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Facility Description

Facility Name: West Elgin Distribution System

Facility Type: Municipal

Classification: Class 1 Water Distribution

Drinking Water System Category: Large Municipal Residential

Title Holder: Municipality

Service Information

Area(s) Serviced: The West Elgin Distribution System receives water from the Tri-County Drinking Water System and services the communities of West Lorne, Rodney, Eagle, New Glasgow and Rural areas within the municipality.

Operational Description:

In addition to the watermains, valves, auto flushers, sample stations and fire hydrants, the West Elgin Distribution System has a water storage facility. The system is controlled at the Tri-County Water Treatment Plant by the SCADA system.

The Rodney Tower in conjunction with the West Lorne Standpipe (a part of the Tri-County Drinking Water System) provides water pressure to the distribution system. The highlift pumps at the Tri-County Water Treatment Plant start when the West Lorne Standpipe reaches the start set point and will continue to fill till the stop set point. Based on the elevations in the system, the Rodney Tower will only begin filling once the West Lorne Standpipe is full. There are four chambers located at Pioneer Line, Marsh Line, Silver Clay and Talbot Line West of Graham that control the flow to Rodney. These chambers contain automated valves so that when the Rodney Tower reaches the start set point the valves open up to allow water to be fed from the West Lorne distribution system. The highlift pumps stop set point of the West Lorne Standpipe will be overridden if the Rodney Tower has not reached its stop set point, and therefore will continue to run to fill up the Rodney Tower.

Key information on the Rodney Tower:

- Single fill/draw 300mm diameter pipe
- Constructed in 1994 by Landmark
- Volume of 1,200m³
- Base elevation: 210.8m; Storage elevations: 238.9m to 250.6m; therefore resulting water pressure 276-386kPa (40-56psi)
- Located at 192 Victoria Street in Rodney

Facility Name: West Elgin Distribution System
ORG#: 1266

SECTION 1: COMPLIANCE SUMMARY

FIRST QUARTER:

There were no compliance or exceedance issues reported for the first quarter.

SECTION 2: INSPECTIONS

FIRST QUARTER:

On February 11th, 2022 a routine MECP inspection took place by Angela Stroyberg. A rating of 100% was received.

SECTION 3: QEMS UPDATE

FIRST QUARTER:

There have been no updates to QEMS at this time.

SECTION 4: PERFORMANCE ASSESSMENT REPORT

All sampling and testing have met O. Reg. 170/03 requirements. The limit for Total Coliform and E. coli is zero, heterotrophic plate count (HPC) doesn't have a limit. This is an operational guide to initiate an action plan if results are continuously high in an area. Samples are taken at four different locations throughout the distribution system each week, see results below.

	# Samples	Total Coliform Range (cfu/100mL)	E. coli Range (cfu/100mL)	# Samples	HPC (cfu/100mL)
January	20	0 - 0	0 - 0	10	<10 – <10
February	16	0 - 0	0 - 0	8	<10 – <10
March	16	0 - 0	0 - 0	8	<10 – <10
April					
May					
June					
July					
August					
September					
October					
November					
December					

Trihalomethanes are sampled on a quarterly basis. The table below shows the current running average in 2021. The annual average in 2020 was 58 ug/L, therefore the current running average has decreased 11.6% when compared to the annual average in 2020.

	Limit (ug/L)	THM Result (ug/L)
January 2022	-	43
April 2021	-	43
July 2021	-	47
October 2021	-	73
Running Average	100	51.5

Haloacetic Acids (HAAs) are sampled on a quarterly basis in accordance with O. Reg. 170/03. The table below shows the running average so far in 2021. The annual average in 2020 was 32.25 ug/L, therefore the current running average has decreased 18.2% when compared to the annual average in 2020.

	Limit (ug/L)	HAA Result (ug/L)
January 2022	-	18.1
April 2021	-	26.2
July 2021	-	21.6
October 2021	-	35.5
Running Average	80	25.35

The Rodney Tower continuously monitors the free chlorine residual of the water. The results fluctuate based on fill cycles. During the winter months the results are usually very good, however, once there is warmer weather the chlorine residuals dissipate. In spring of 2018 the Rodney tower installed a re-chlorination facility. Chlorine residuals are taken throughout the distribution system in accordance to O. Reg. 170/03 requirements. The graph below provides the minimum, maximum and average chlorine residuals throughout the distribution system in 2022.

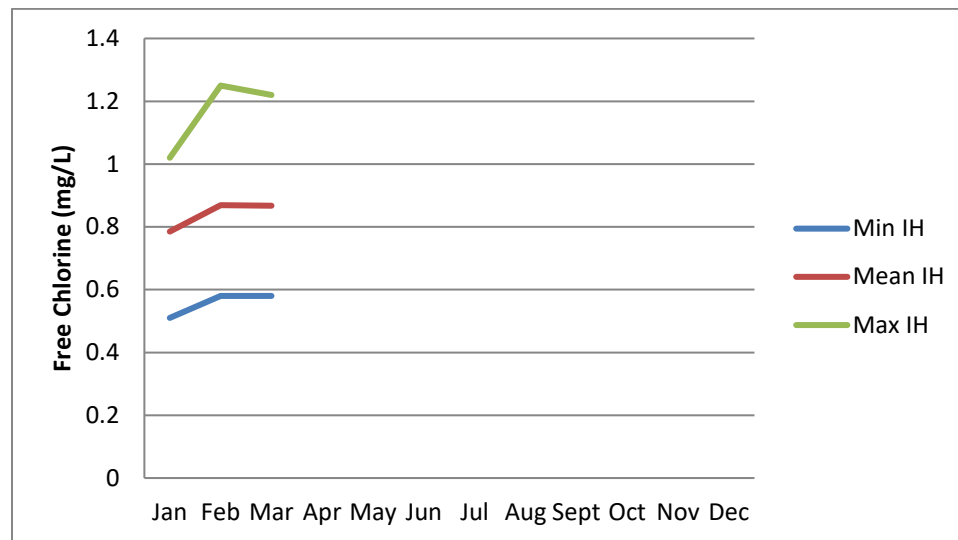


Figure 1. Free Chlorine Residuals in Distribution System

SECTION 5: OCCUPATIONAL HEALTH & SAFETY

FIRST QUARTER:

There were no Health & Safety issues identified during the first quarter.

SECTION 6: GENERAL MAINTENANCE:

January

04, 11, 17, 24, 31: Sampled As Per Sampling Calendar
07, 14, 21, 28: Completed Set 2 of Weekly Residuals
18: On site on Highway #3-new build; completed live tap.

February

07, 14, 22, 28: Sampled As Per Sampling Calendar
04, 11, 18, 25: Completed Set 2 of Weekly Residuals
03: PH calibration at analyzers.
24: On site at Fletchers Lane & Centre Street Rodney for service leak on 2 inch service. Working alongside municipal workers, replaced approximately 1.5 feet of two inch PVC pipe.

March

07, 14, 21, 28: Sampled As Per Sampling Calendar
04, 11, 18, 25: Completed Set 2 of Weekly Residuals
17: Operator on site at Bus depot West Lorne for Fire Flow testing with Forest City Fire Protection.
28: Operator on site at 154 John Street, West Lorne for water leak. Operator installed 4 inch saddle on main, re-tapped water service to home, re-opened valves and flushed before leaving site.

SECTION 7: ALARMS:

January

23: High Cl2 Alarm at Rodney Tower. Arrived on site and analyzers were out of alarm. Operator tested and calibrated before leaving site.

February

11: Received call from Tri County operator for high PH at Rodney Tower due to CO2 issues at Water Plant. Operator gave Andrew Trask of Tri County permission to increase PH set point from 8.50 to 8.60 as approved by ORO and PCT.

March

No alarms this month.

SECTION 8: COMPLAINTS & CONCERNS:

First Quarter

No customer complaints this quarter.