



Ontario Clean Water Agency
Agence Ontarienne Des Eaux

1266 West Elgin Distribution System
Operations Report
First Quarter 2021

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 24th, 2021 a routine MECP inspection took place by Angela Stroyberg. A rating of 98.53% was received. One non-compliance was received for logbooks not being maintain and/or did not contain the required information. On March 29, 2020 the online chlorine analyzers at the tower had a read out of 0.00mg/L. A communication issue happened at the Tri-County Water Treatment Plant that resulted in loss of SCADA records. This issue was noted in the Tri-County logbook but not West Elgin.

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	16	0 - 0	0 - 0	8	<10 – <10
February	16	0 - 0	0 - 0	8	<10 – <10
March	20	0 - 0	0 - 0	10	<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 2.6% when compared to the annual average in 2020.

	Limit (ug/L)	THM Result (ug/L)
January 2021	-	42
April 2020	-	40
July 2020	-	45
October 2020	-	99
Running Average	100	56.5

Haloacetic Acids (HAAs) are now required to be 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 1.3% when compared to the annual average in 2020.

	Limit (ug/L)	HAA Result (ug/L)
January 2021	-	22.2
April 2020	-	19.9
July 2020	-	27.3
October 2020	-	57.9
Running Average	80	31.83

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 2021.

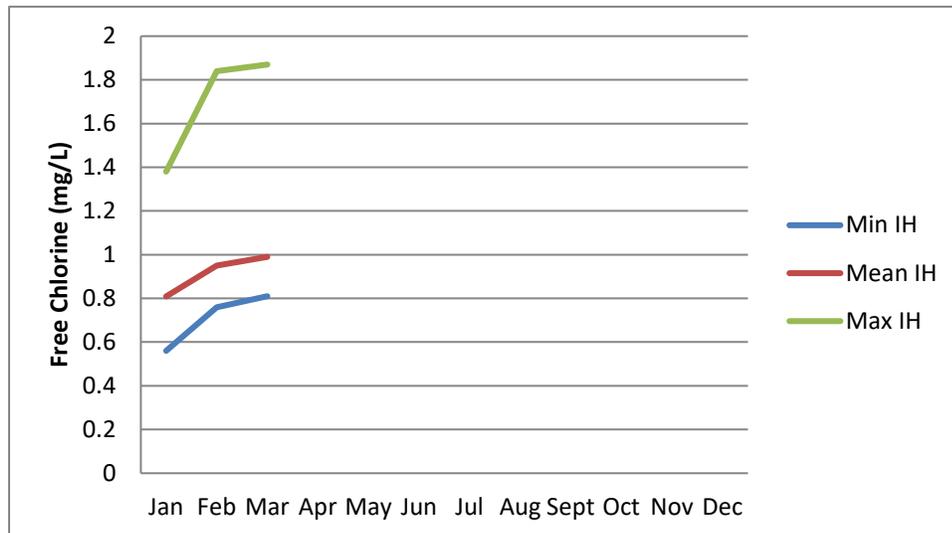


Figure 1. Free Chlorine Residuals in Distribution System

SECTION 5: OCCUPATIONAL HEALTH & SAFETY

FIRST QUARTER:

Due to the COVID-19 pandemic; precautionary protection measures have been implemented at all facilities. In addition to the mandatory PPE worn by all operational staff, the following additional steps were taken to assure safety:

- Additional PPE and supplies were sourced as applicable.
- The frequency of facility and vehicle cleaning and surface disinfection was increased and documented
- Staff re-organization was implemented to meet social distancing requirements where applicable.
- Facility access to essential contractors and/or delivery personal are closely monitored.

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

SECTION 6: INSPECTIONS:

There were no inspections this month

SECTION 7: GENERAL MAINTENANCE:

January

01- 31 Collected weekly bacti samples and residuals throughout distribution system

01-31: Collected week end residuals and auto flushers each week throughout distribution system

06: Rodney tower overflowing, Tri County operator informed and set points adjusted.

19: sample station rounds completed.

February

01- 28: Collected weekly bacti samples and residuals throughout distribution system

01-31: Collected week end residuals and auto flushers each week throughout distribution system

01: Collected Scheduling 15.1 samples for lead and alkalinity.

12: Called Prominent help desk to assist with clearing error code on chlorine analyzer.

17: replaced broken parts on auto flusher at the west dead end of Gray line.

25: Sample station monthly rounds completed.

26: verification on hand held colorimeter completed.

March

01, 08, 15, 22, and 29: Weekly bacti samples obtained and sent to SGS lab.

01, 05, 08, 12, 15, 19, 22, 26, 29: Weekly residuals obtained and recorded.

10: Inspect Hydrant #97, on the corner of Graham Road and Monroe St. after fire department used it. Hydrant is an old Concord hydrant and operated a bit stiff but is operable. Nowhere to grease the hydrant. Notified SOM

18: Delivered 2 x 20L pails of chlorine to Rodney Tower.

29: Flowmetrix onsite for annual flow meter inspection.

30: Started to work on the hydrant located on the corner of Graham Road and #3 highway. Project is put on hold due to not being able to isolate the system, old restraints are attached and will not hold the secondary valve while hydrant being replaced as they are cables attached to the hydrant boot. Running along the valve to the 14" water main along the east side of Graham rd. Notified ORO/SOM a better plan

of action is required to complete the work safely.

31: Increased chlorine dose from 0.90ppm to 1.10ppm to prep for flushing of the distribution system.

SECTION 8: ALARMS:

No alarms this month

SECTION 9: COMPLAINTS & CONCERNS:

January

07: pumped hydrant at Elgin International hall after call was received by West Elgin Fire Chief, post fire operations.

21: received call from Tri County WTP high flows on North meter chamber, investigated issue and found the controller for the auto flusher at Dymock Line had malfunctioned in the open position. Replaced controller.

February

No community complaints

March

20: Received call from SOM Sam Smith in regards to water leaking out ground at 215 Gilbert Street in West Lorne. Arrived onsite, confirmed complaint and found that service line for factory was leaking on property side of isolation valve. Throttled down valve to slow down flow as property owner could not schedule repair until tomorrow (March 21st, 2021). Notified SOM of issues and actions taken.

21: Onsite today @ 215 Gilbert Street to monitor contractors repairs to leaking service line to building. Once excavated down to leaking pipe, isolated valve to stop positive pressure flow to complete repairs. Contractor used 8" repair clamp to fix blow out hole in 8" cast iron pipe. Once repaired, opened valve slowly, flushed slowly thru building to release air from piping etc. Flushed for 25 minutes. Checked for leaks once fully re opened and all appears ok. See water main repair form for further details