

Rockland Drinking Water System

Waterworks # 21000639
System Category – Large Municipal Residential

Annual Water Report

Prepared For:
The Corporation of the City of Clarence Rockland

Reporting Period of January 1st – December 31st 2023

Revised: March 28th, 2024

Revision: 1



This report has been prepared to satisfy the annual reporting requirements in O.Reg 170/03 Section 11 and Schedule 22

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Revision History

Date	Revision #	Revision Notes
February 8, 2024	0	Issued Annual Report
March 28, 2024	1	Revised to include the 2023 Ministry Inspection report findings

Report Availability

This system serves more than 10,000 residents therefore the annual reports shall be made available publically to residents of The Corporation of the City of Clarence-Rockland. Notification should be made available on the municipal website and copies provided free of charge if requested at the Municipal Office located at, 1560 Laurier St. Rockland On. K4K 1P7.

Compliance Report Card

Compliance Event	# of Events
Ministry of Environment Inspections	January 24, 2024
Ministry of Labour Inspections	0
QEMS External Audit	Off-Site Plant Audit – 3 OFI's
AWQIs	1 TC April 17 & 11 TC May 8
Non-Compliance	3 – Sampling Frequencies
Community Complaints	2
Watermain Breaks & Service Repairs	5

System Process Description

Raw Source

Raw water source for the Rockland Drinking Water System is the Ottawa River as per Permit to Take Water #3168-B2JK5N expiring on June 30th 2028. Raw water intake facility consists of a 630mm HDP# Series 45 pipe extending approximately 126 meters from the low lift pumping station into the Ottawa river. Water is conveyed to the water treatment facility by one of 3 vertical turbine pumps.

Treatment

The Clarence Rockland Water Treatment Plant is a 13,500 m³/day conventional filtration type treatment plant with Actiflo® pre-treatment. The Plant is located at 125 Edwards Street in Rockland and services the City of Clarence Rockland and five Hamlets (Clarence Creek, St-Pascal Baylon, Hammond, Bourget and Cheney). The facility consist of the following components; Raw water intake obtained from the Ottawa River. A low lift pumping station including three vertical turbine pumps. Water is directed to two Actiflo® units followed by two rapid dual media gravity filters of sand and anthracite. Filtered water is disinfected and passed through a UV system consisting of two units. A baffled chlorine contact tank of 233.5 m³ and two reservoirs having a total capacity of 471 m³. Secondary disinfection is achieved via chloramination at the discharge of the plant.

Treatment Chemicals used during the reporting year:

Chemical Name	Use	Supplier
Sodium Hydroxide 50%	Pre and Post pH adjustment	Sodrox
Aluminium Chloride Sulphate (PAX-XL6)	Coagulant	Kemira
Polymer - Praestol DW27AG	Flocculation Agent	BASF/Solenis
Sodium Hypochlorite	Post Disinfection	UBA
Ammonium Sulphate	Secondary Disinfection "Chloramination"	Canada Colors & Chemicals

Distribution

Water is pumped into the distribution system by four centrifugal high lift pumps. A Booster Station with three centrifugal pumps is used for the water demand of the Hamlets. The rate of water supplied is based on the three elevated water tower storage tanks and demand from the City of Clarence-Rockland and its Hamlets.

Summary of Non-Compliance

Adverse Water Quality Incidents

Date	AWQI #	Issue
April 17	161 773	1 TC for Distribution Sample at the Clarence Creek Garage
May 8	161 916	11 TC for Distribution Sample at the Clarence Creek Garage

Non-Compliance

Legislation	requirement(s) system failed to meet	Details	Corrective Action	Status
O.Reg 170/03 Sch. 15	Alkalinity	Missed Sample window	Reminded staff, requested samples be taken at the beginning of the sample period	Complete

Non-Compliance Identified in a Ministry Inspection:

Legislation	requirement(s) system failed to meet	duration of the failure (i.e. date(s))	Corrective Action	Status
O. Reg 170/03 Sch. 6	Inorganic sampling	Sample taken too early	Reviewed sampling calendars with staff, made a new sample calendar that automatically calculates next sample date range when you enter the previous sample date.	Complete
O. Reg 170/03 Sch. 6	Organic sampling	Sample taken too early		Complete

Flows

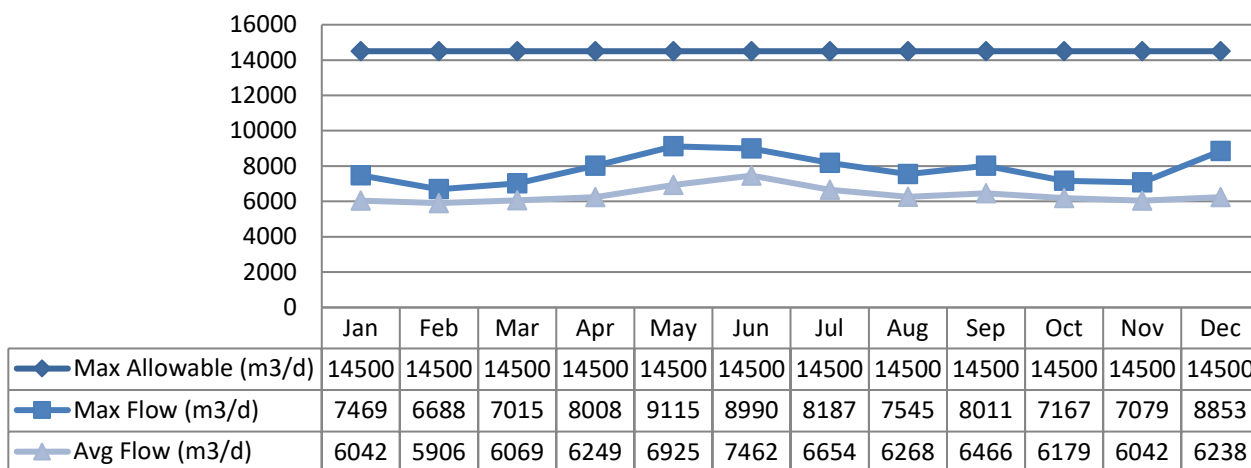
The Rockland Drinking Water System is operating on average under half the rated capacity. During summer peak demands both actiflo units are required to work in order to meet demand and fire capacity levels in the water tower reservoirs.

Raw Water Flows

The Raw Water flows are regulated under the Permit to Take Water Ontario Regulation 387/04. Water Taking and Transfers requires all water takers to report daily water taking amounts to the Water Taking Reporting System (WTRS) electronic database. The 2023 Raw Flow Data was submitted to the Ministry electronically under permit PTTW #3168-B2JK5N. The confirmation and a copy of the data that was submitted are attached in Appendix A.

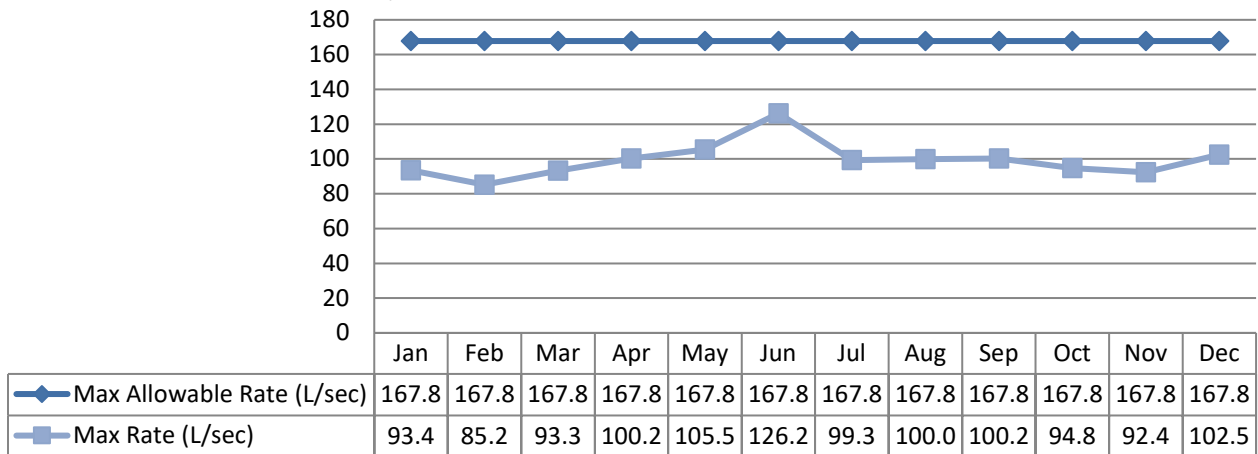
Total Monthly Flows (m3/d)

Max Allowable PTTW 14500 m3/d



Monthly Rated Flows (L/s)

Max allowable rate - PTTW 167.8 L/sec

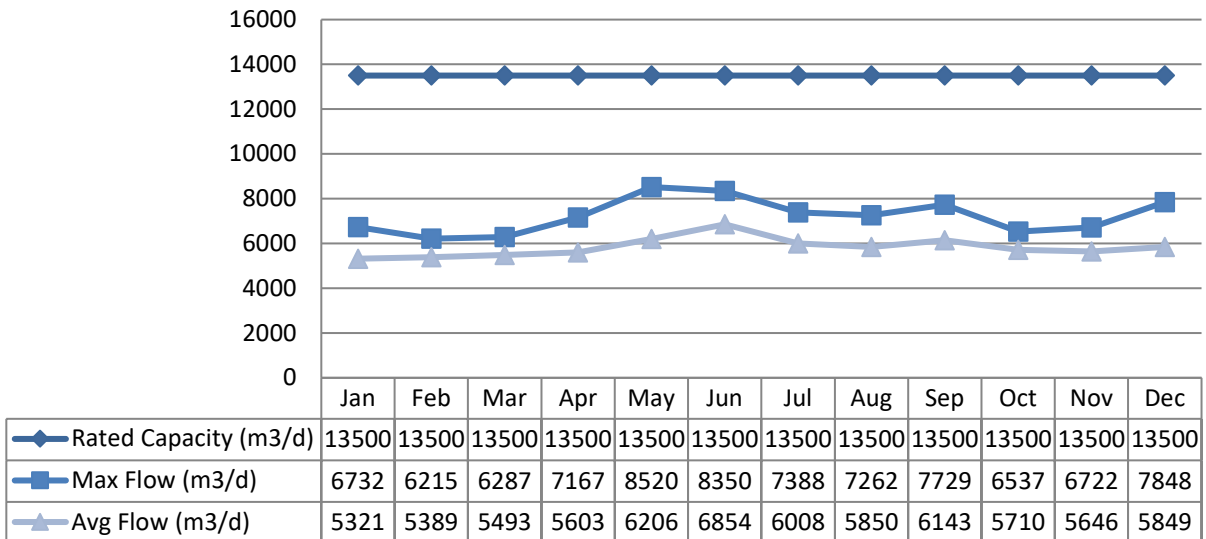


Treated Water Flows

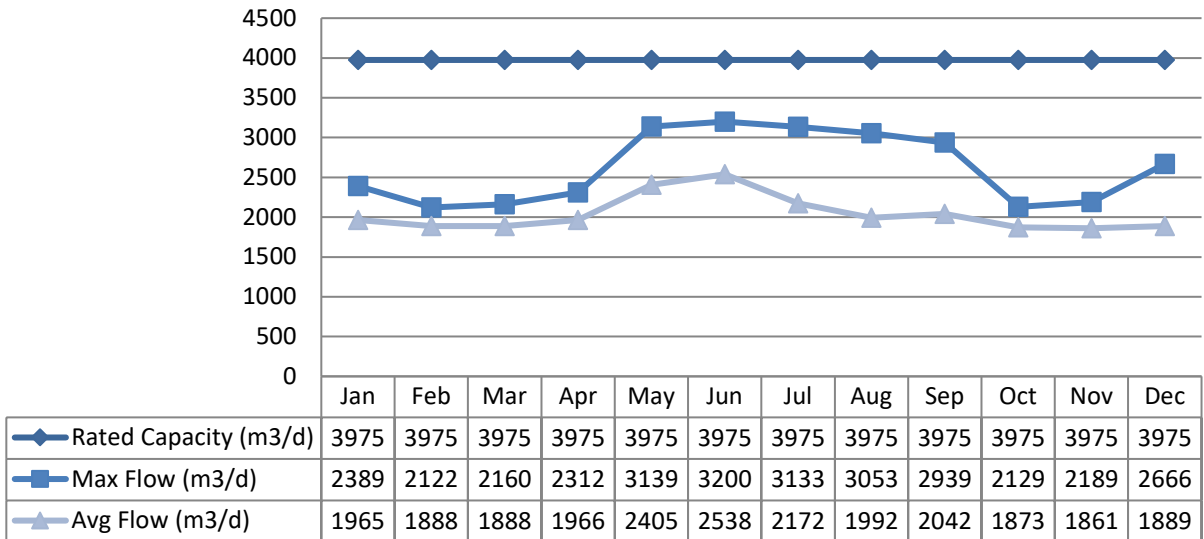
The Treated Water flows are regulated under the Municipal Drinking Water Licence Number: 175-101
Issue Number: 5

Monthly Rated Flows

Rated Capacity – MDWL WTP 13,500m³/day



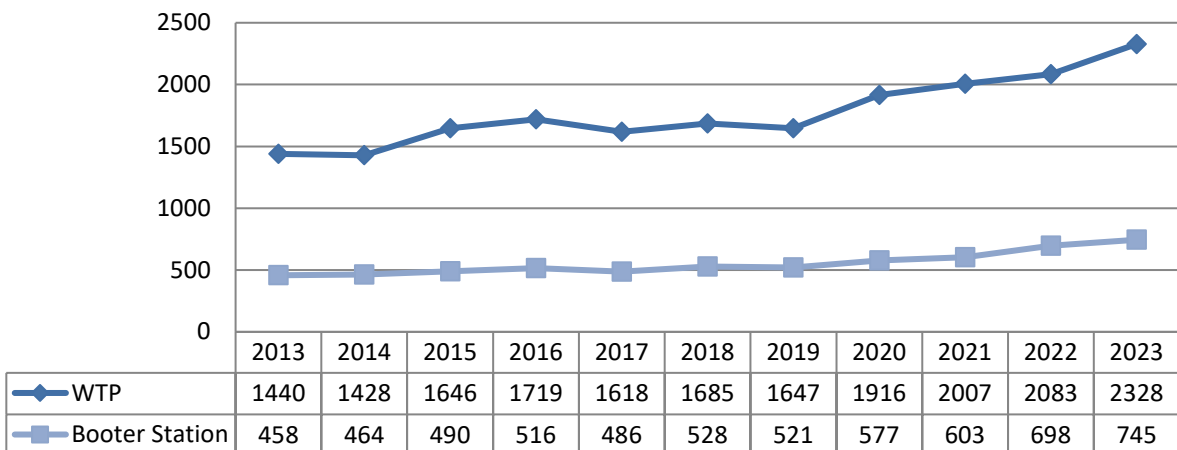
Rated Capacity – MDWL Booster Pumping Station 3,975 m3/day



Annual Total Flow Comparison

Please note that the booster station flows are included in the treated water WTP flows, and all flows are represented here as megalitres.

Total Annual ML



Regulatory Sample Results Summary

Microbiological Testing

	No. of Samples Collected	Range of E.Coli Results		Range of Total Coliform Results		Range of HPC Results	
		Min	Max	Min	Max	Min	Max
Raw Water	52	0	53	70	8100		
Treated Water	52	0	0	0	0	2	4
Distribution Water	394	0	0	0	11	2	8

Operational Testing

	No. of Samples Collected	Range of Results	
		Minimum	Maximum
Turbidity, In-House (NTU) - RW	156	1.8	28.9
Turbidity, On-Line (NTU) - TW	8760	0.11	0.29
Turbidity, On-Line (NTU) – Filter #1	8760	0.03	0.91
Turbidity, On-Line (NTU) – Filter #2	8760	0.04	0.88
Free Chlorine Residual, On-Line (mg/L) - TW	8760	0.90	2.76
Combined Chlorine Secondary Disinfection, On-Line (mg/L) – TW	8760	0.83	3.18
Combined Chlorine Residual, On-Line (mg/L) – DW	8760	0.7	2.9

NOTE: spikes recorded by on-line instrumentation were a result of air bubbles and various maintenance/calibration activities. All spikes are reviewed for compliance with O.Reg 170/03

Inorganic Parameters

These parameters are tested as a requirement under 170/03. Sodium and Fluoride are required to be tested every 5 years. Nitrate and Nitrite are tested quarterly and the metals are tested annually as required under 170/03. In the event any of the parameters exceed half of the maximum allowable concentration the parameter is required to be sampled quarterly.

- MAC = Maximum Allowable Concentration as per O.Reg 169/03
- <MDL = Below the laboratory detection level

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	No. of Exceedances	
				MAC	1/2 MAC
Treated Water					
Antimony: Sb (ug/L) - TW	2023/07/19	<MDL 0.1	6.0	No	No
Arsenic: As (ug/L) - TW	2023/07/19	0.2	25.0	No	No
Barium: Ba (ug/L) - TW	2023/07/19	13.0	1000.0	No	No
Boron: B (ug/L) - TW	2023/07/19	7.0	5000.0	No	No
Cadmium: Cd (ug/L) - TW	2023/07/19	<MDL 0.015	5.0	No	No
Chromium: Cr (ug/L) - TW	2023/07/19	<MDL 1.0	50.0	No	No
Mercury: Hg (ug/L) - TW	2023/07/19	<MDL 0.02	1.0	No	No
Selenium: Se (ug/L) - TW	2023/07/19	<MDL 1.0	50.0	No	No

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	No. of Exceedances	
				MAC	1/2 MAC
Uranium: U (ug/L) - TW	2023/07/19	<MDL 0.05	20.0	No	No
Additional Inorganics					
Fluoride (mg/L) - TW	2019/04/12	<MDL 0.1	1.5	No	No
Nitrite (mg/L) - TW	2023/03/13	<MDL 0.05	1.0	No	No
Nitrite (mg/L) - TW	2023/05/15	<MDL 0.05	1.0	No	No
Nitrite (mg/L) - TW	2023/07/19	<MDL 0.05	1.0	No	No
Nitrite (mg/L) - TW	2023/10/10	<MDL 0.05	1.0	No	No
Nitrate (mg/L) - TW	2023/03/13	0.28	10.0	No	No
Nitrate (mg/L) - TW	2023/05/15	0.16	10.0	No	No
Nitrate (mg/L) - TW	2023/07/19	0.25	10.0	No	No
Nitrate (mg/L) - TW	2023/10/10	0.2	10.0	No	No
Sodium: Na (mg/L) - TW	2019/04/12	25.4	20*	N/A	N/A

*There is no "MAC" for Sodium. The aesthetic objective for sodium in drinking water is 200 mg/L. The local Medical Officer of Health should be notified mg/L when the sodium concentration exceeds 20 mg/L so that this information may be communicated to local physicians for their use with patients on sodium restricted diets.

Schedule 15 Sampling:

The Schedule 15 Sampling is required under O.Reg 170/03. This system is under reduced sampling. No plumbing samples were collected.

Distribution System	Number of Sampling Points	Number of Samples	Range of Results		MAC (ug/L)	Number of Exceedances
			Minimum	Maximum		
Alkalinity (mg/L)	4	8	16	36	N/A	N/A
pH	4	8	6.2	6.3	N/A	N/A
Lead (mg/L)	4	8	N/A	N/A	10	N/A

Organic Parameters

These parameters are tested annually as a requirement under O.Reg 170/03. In the event any of the parameters exceed half of the maximum allowable concentration the parameter is required to be sampled quarterly.

TREATED WATER	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
Alachlor (ug/L) - TW1	2023/07/19	< 0.3	5.0	No	No
Atrazine + N-dealkylated metabolites (ug/L) - TW1	2023/07/19	< 0.5	5.0	No	No
Azinphos-methyl (ug/L) – TW1	2023/07/19	< 1.0	20.0	No	No
Benzene (ug/L) - TW1	2023/07/19	< 0.5	1.0	No	No
Benzo(a)pyrene (ug/L) - TW1	2023/07/19	< 0.006	0.01	No	No
Bromoxynil (ug/L) - TW1	2023/07/19	< 0.5	5.0	No	No
Carbaryl (ug/L) - TW1	2023/07/19	< 3.0	90.0	No	No
Carbofuran (ug/L) - TW1	2023/07/19	< 1.0	90.0	No	No
Carbon Tetrachloride (ug/L) - TW1	2023/07/19	< 0.2	2.0	No	No

TREATED WATER	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
Chlorpyrifos (ug/L) - TW1	2023/07/19	< 0.5	90.0	No	No
Diazinon (ug/L) - TW1	2023/07/19	< 1.0	20.0	No	No
Dicamba (ug/L) - TW1	2023/07/19	< 1.0	120.0	No	No
1,2-Dichlorobenzene (ug/L) - TW1	2023/07/19	< 0.5	200.0	No	No
1,4-Dichlorobenzene (ug/L) - TW1	2023/07/19	< 0.5	5.0	No	No
1,2-Dichloroethane (ug/L) - TW1	2023/07/19	< 0.5	5.0	No	No
1,1-Dichloroethylene (ug/L) - TW1	2023/07/19	< 0.5	14.0	No	No
Dichloromethane (Methylene Chloride) (ug/L) - TW1	2023/07/19	< 5.0	50.0	No	No
2,4-Dichlorophenol (ug/L) - TW1	2023/07/19	< 0.2	900.0	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L) - TW1	2023/07/19	< 1.0	100.0	No	No
Diclofop-methyl (ug/L) - TW1	2023/07/19	< 0.9	9.0	No	No
Dimethoate (ug/L) - TW1	2023/07/19	< 1.0	20.0	No	No
Diquat (ug/L) - TW1	2023/07/19	< 5.0	70.0	No	No
Diuron (ug/L) - TW1	2023/07/19	< 5.0	150.0	No	No
Glyphosate (ug/L) - TW1	2023/07/19	< 25.0	280.0	No	No
Malathion (ug/L) - TW1	2023/07/19	< 5.0	190.0	No	No
Metolachlor (ug/L) - TW1	2023/07/19	< 3.0	50.0	No	No
Metribuzin (ug/L) - TW1	2023/07/19	< 3.0	80.0	No	No
Monochlorobenzene (Chlorobenzene) (ug/L) - TW1	2023/07/19	< 0.5	80.0	No	No
Paraquat (ug/L) - TW1	2023/07/19	< 1.0	10.0	No	No
PCB (ug/L) - TW1	2023/07/19	< 0.05	3.0	No	No
Pentachlorophenol (ug/L) - TW1	2023/07/19	< 0.2	60.0	No	No
Phorate (ug/L) - TW1	2023/07/19	< 0.3	2.0	No	No
Picloram (ug/L) - TW1	2023/07/19	< 5.0	190.0	No	No
Prometryne (ug/L) - TW1	2023/07/19	< 0.1	1.0	No	No
Simazine (ug/L) - TW1	2023/07/19	< 0.5	10.0	No	No
Terbufos (ug/L) - TW1	2023/07/19	< 0.5	1.0	No	No
Tetrachloroethylene (ug/L) - TW1	2023/07/19	< 0.5	10.0	No	No
2,3,4,6-Tetrachlorophenol (ug/L) - TW1	2023/07/19	< 0.2	100.0	No	No
Triallate (ug/L) - TW1	2023/07/19	< 10.0	230.0	No	No
Trichloroethylene (ug/L) - TW1	2023/07/19	< 0.5	5.0	No	No
2,4,6-Trichlorophenol (ug/L) - TW1	2023/07/19	< 0.2	5.0	No	No
2-methyl-4-chlorophenoxyacetic acid (MCPA) (ug/L) - TW1	2023/07/19	< 10.0	100.0	No	No
Trifluralin (ug/L) - TW1	2023/07/19	< 0.5	45.0	No	No
Vinyl Chloride (ug/L) - TW1	2023/07/19	< 0.2	1.0	No	No

DISTRIBUTION WATER	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
Trihalomethane: Total (ug/L) Annual Average - DW	2023/10/10	44.2	100.0	No	No
HAA Total (ug/L) Annual Average - DW	2023/10/10	37.44	80.0*	No	No

*The MAC for HAA Total (Based on a RAA of quarterly results) came into effect on January 1, 2020.

MAC = Maximum Allowable Concentration as per O.Reg 169/03

BDL = Below the laboratory detection level

Additional Legislated Samples

Summary of additional testing and sampling carried out in accordance with the requirement of an approval or order.

Date of order or Municipal Drinking Water Licence	Parameter	Date Sampled	Result	Total Chlorine Residual	Unit of Measure
Municipal Drinking Water Licence #175-101	Suspended Solids	Jan 4, 2023	10	0.0	mg/L
		Feb 6, 2023	22	0.0	mg/L
		Mar 6, 2023	3	0.0	mg/L
		April 3, 2023	5	0.0	mg/L
		May 3, 2023	5	0.0	mg/L
		June 5, 2023	5	0.0	mg/L
		July 4, 2023	4	0.0	mg/L
		Aug 8, 2023	5	0.0	mg/L
		Aug 28, 2023	18	0.0	Mg/L
		Sep 6, 2023	7	0.0	mg/L
		Oct 10, 2023	19	0.0	mg/L
		Nov 6, 2023	11	0.0	mg/L
		Dec 11, 2023	18	0.0	mg/L
Annual Average			10.2	-	mg/L

Major Maintenance Summary

Water Treatment Plant Maintenance

Date	Details
2023	Various small modifications to the PLCs throughout the 2023 reporting year
January 17, February 7	Inspection of heaters by contractor, replace heater on North wall in garage
March 1	Annual inspection of lifting devices, at all facilities
March 10	New coagulant mixer motor #212 installed
March 13	Coagulant mixer motor # 222 maintenance Outdoor entrance lights installed

April 25	Fixed plumbing in chlorine containment
May 30	Annual inspection of back-flow preventers
June 15	Annual inspection and calibration of flow meters
June 20 & 21	Annual chemical feed pump maintenance
July 1	Replace UPS for the SCADA
July 16	Replace cyclone pipe #2
October 12	Repair of leaking plumbing on chlorine feed pump #92
October 26	Install new intake sign on the shore near the low lift
November 8	Replace broken fill line for sodium hypo, outside valve and piping
November 21	Replace motor on gas heater
November 28	Annual UV maintenance
November 29	Annual Ffre extinguisher and emergency light inspection
December 11	Actiflo 1 Sludge pump/scrapper – inspection/unblock

Distribution System Maintenance

Date	Location Reference	Details
2023	Distribution	Contractors onsite for minor upgrades and repairs to PLCs
January 18	2265 Dollard st, Bourget	Watermain break
February 2	Dahlia St, Cheney	New service connection
February 27	St. Joseph	Watermain Break, 1" service abandoned had a pin hole, installed curb stop
March 7	104 Moise Gendron, Bourget	Hydrant hit
April 27 & 28	Edwards HWY 17	Watermain Break , broken valve
May 2-4	Robert St	Watermain Break
May 8	Bouvier tower	Contractor onsite to replace controller for influent valve
May 16 & 17	St Pascal, Hammond, & Morris Village	Flushing of Dead-ends
June 14	Cheney Tower	Contractor onsite to activate trending and alarms for

Date	Location Reference	Details
		chlorine analyzer at the tower in order to make it the compliance analyzer
June 15	Distribution	Fix hydrants, 190 Grand Tronc, Giroux-Laurier, Des La Tulip
September 8	St.Jean St	Watermain break, Contractor hit the watermain
September 27	888 Chapman, 1450 & 1440 Bouvier Road	New water services
October 3	571 Gareau St	New water service
October 4	2096 Bouvier	New service connection
October 32	Rockland Tower	Contractor onsite to check level transmitter
November 15	438 de la Baie	Replace curbstop
November 23	1420 Roger St	New connection
December 5	Green / Darquise St	New watermain connection and hydrant installation
December 22	Bouvier-Lacroix St	Repair hydrant valve
2023	Distribution	Caron Street – New mains Phase 3 of Golf Subdivision – New Mains Notre-Dame-Francoise Street - services, hydrants, valve replacements St-Jean St - New watermain from Corbeil St to Patricia St Connection of SPS 9 to Watermain
2023	Distribution	Flush dead-ends every 3 months

Appendix A - WTRS Data and Submission Confirmation



Water Taking Data submitted successfully.

Confirmation:

Thank you for submitting your water taking data online.

Permit Number: 3168-B2JK5N
Permit Holder: THE CORPORATION OF THE CITY OF CLARENCE-ROCKLAND.
Received on: Feb 8, 2024 1:07 PM

This confirmation indicates that your data has been received by the Ministry, but should not be construed as acceptance of this data if it differs from that specified on the Permit Number, assigned to the Permit Holder stated above.

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Ontario Clean Water Agency
Annual Water Taking and Transfer Report
From 01/01/2023 To 12/31/2023

Facility: ROCKLAND DRINKING WATER SYSTEM-6847
Tag: Raw Flow: Sum (m3/d)
Tag Group: Raw Water

Permit#: 3168-B2JK5N
Source Name: Ottawa River
Source: River
Type:
Purpose: Municipal

Coordinate Zone: 18
Easting: 476721
Northing: 5044788
Method deter: Metered

Date Measured	Value ()	Value (Litres)
01/01/2023	6524.4000	6524400.0000
02/01/2023	5165.8000	5165800.0000
03/01/2023	6895.5000	6895500.0000
04/01/2023	5610.6000	5610600.0000
05/01/2023	4660.1000	4660100.0000
06/01/2023	5715.0000	5715000.0000
07/01/2023	5590.9000	5590900.0000
08/01/2023	6471.8000	6471800.0000
09/01/2023	6984.7000	6984700.0000
10/01/2023	6180.0000	6180000.0000
11/01/2023	6198.5000	6198500.0000
12/01/2023	5564.3000	5564300.0000
13/01/2023	5082.2000	5082200.0000
14/01/2023	7468.9000	7468900.0000
15/01/2023	6324.0000	6324000.0000
16/01/2023	5918.2000	5918200.0000
17/01/2023	6411.9000	6411900.0000
18/01/2023	5864.8000	5864800.0000
19/01/2023	4963.4000	4963400.0000
20/01/2023	6756.2000	6756200.0000
21/01/2023	5782.5000	5782500.0000
22/01/2023	6334.7000	6334700.0000
23/01/2023	6352.4000	6352400.0000
24/01/2023	5902.1000	5902100.0000
25/01/2023	5820.8000	5820800.0000
26/01/2023	5627.0000	5627000.0000
27/01/2023	6448.2000	6448200.0000
28/01/2023	6187.9000	6187900.0000
29/01/2023	6232.5000	6232500.0000
30/01/2023	6178.6000	6178600.0000
31/01/2023	6085.5000	6085500.0000
01/02/2023	6403.0000	6403000.0000
02/02/2023	5942.9000	5942900.0000
03/02/2023	5753.0000	5753000.0000
04/02/2023	5721.0000	5721000.0000
05/02/2023	6263.7000	6263700.0000
06/02/2023	6028.0000	6028000.0000
07/02/2023	5617.9000	5617900.0000
08/02/2023	5735.2000	5735200.0000
09/02/2023	4918.3000	4918300.0000
10/02/2023	6508.4000	6508400.0000
11/02/2023	5619.4000	5619400.0000

12/02/2023	6030.2000	6030200.0000
13/02/2023	5824.4000	5824400.0000
14/02/2023	5791.5000	5791500.0000
15/02/2023	5774.2000	5774200.0000
16/02/2023	5993.9000	5993900.0000
17/02/2023	5507.7000	5507700.0000
18/02/2023	5711.4000	5711400.0000
19/02/2023	6225.6000	6225600.0000
20/02/2023	6123.8000	6123800.0000
21/02/2023	6098.9000	6098900.0000
22/02/2023	5601.5000	5601500.0000
23/02/2023	5645.5000	5645500.0000
24/02/2023	6190.6000	6190600.0000
25/02/2023	5714.5000	5714500.0000
26/02/2023	6687.8000	6687800.0000
27/02/2023	5746.5000	5746500.0000
28/02/2023	6197.3000	6197300.0000
01/03/2023	6051.5000	6051500.0000
02/03/2023	6040.3000	6040300.0000
03/03/2023	5852.3000	5852300.0000
04/03/2023	6098.3000	6098300.0000
05/03/2023	6818.9000	6818900.0000
06/03/2023	6160.3000	6160300.0000
07/03/2023	5765.1000	5765100.0000
08/03/2023	5811.9000	5811900.0000
09/03/2023	5653.0000	5653000.0000
10/03/2023	6370.4000	6370400.0000
11/03/2023	5938.3000	5938300.0000
12/03/2023	5975.9000	5975900.0000
13/03/2023	6220.1000	6220100.0000
14/03/2023	5595.9000	5595900.0000
15/03/2023	5986.7000	5986700.0000
16/03/2023	6013.2000	6013200.0000
17/03/2023	5881.5000	5881500.0000
18/03/2023	5855.8000	5855800.0000
19/03/2023	6819.5000	6819500.0000
20/03/2023	6365.1000	6365100.0000
21/03/2023	6012.4000	6012400.0000
22/03/2023	5985.1000	5985100.0000
23/03/2023	6053.8000	6053800.0000
24/03/2023	5763.3000	5763300.0000
25/03/2023	5782.7000	5782700.0000
26/03/2023	7014.7000	7014700.0000
27/03/2023	6065.7000	6065700.0000
28/03/2023	6087.8000	6087800.0000
29/03/2023	5957.5000	5957500.0000
30/03/2023	6162.3000	6162300.0000
31/03/2023	5981.8000	5981800.0000
01/04/2023	4588.3000	4588300.0000
02/04/2023	7916.8000	7916800.0000
03/04/2023	6152.2000	6152200.0000
04/04/2023	6177.5000	6177500.0000
05/04/2023	4698.3000	4698300.0000
06/04/2023	7138.5000	7138500.0000
07/04/2023	6676.0000	6676000.0000
08/04/2023	6336.9000	6336900.0000
09/04/2023	5829.4000	5829400.0000
10/04/2023	6228.5000	6228500.0000
11/04/2023	6370.0000	6370000.0000
12/04/2023	6415.1000	6415100.0000
13/04/2023	6031.1000	6031100.0000

14/04/2023	6334.8000	6334800.0000
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16/04/2023	6675.4000	6675400.0000
17/04/2023	6412.5000	6412500.0000
18/04/2023	5797.0000	5797000.0000
19/04/2023	5732.3000	5732300.0000
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21/04/2023	6417.5000	6417500.0000
22/04/2023	5852.3000	5852300.0000
23/04/2023	6883.7000	6883700.0000
24/04/2023	6391.2000	6391200.0000
25/04/2023	6339.9000	6339900.0000
26/04/2023	5359.8000	5359800.0000
27/04/2023	5618.0000	5618000.0000
28/04/2023	8008.1000	8008100.0000
29/04/2023	6263.0000	6263000.0000
30/04/2023	6572.0000	6572000.0000
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02/05/2023	5489.3000	5489300.0000
03/05/2023	6909.4000	6909400.0000
04/05/2023	5845.0000	5845000.0000
05/05/2023	6291.8000	6291800.0000
06/05/2023	6241.4000	6241400.0000
07/05/2023	6971.2000	6971200.0000
08/05/2023	6768.5000	6768500.0000
09/05/2023	6229.7000	6229700.0000
10/05/2023	6769.2000	6769200.0000
11/05/2023	7098.5000	7098500.0000
12/05/2023	6456.9000	6456900.0000
13/05/2023	7496.1000	7496100.0000
14/05/2023	6596.8000	6596800.0000
15/05/2023	7391.4000	7391400.0000
16/05/2023	7589.7000	7589700.0000
17/05/2023	6165.8000	6165800.0000
18/05/2023	7292.7000	7292700.0000
19/05/2023	6687.1000	6687100.0000
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21/05/2023	6369.3000	6369300.0000
22/05/2023	6835.5000	6835500.0000
23/05/2023	7082.0000	7082000.0000
24/05/2023	6372.5000	6372500.0000
25/05/2023	6748.0000	6748000.0000
26/05/2023	7033.8000	7033800.0000
27/05/2023	7709.1000	7709100.0000
28/05/2023	7860.6000	7860600.0000
29/05/2023	8249.2000	8249200.0000
30/05/2023	9115.2000	9115200.0000
31/05/2023	8021.5000	8021500.0000
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02/06/2023	8043.2000	8043200.0000
03/06/2023	8038.0000	8038000.0000
04/06/2023	7760.8000	7760800.0000
05/06/2023	8498.5000	8498500.0000
06/06/2023	8741.3000	8741300.0000
07/06/2023	6451.3000	6451300.0000
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10/06/2023	6522.2000	6522200.0000
11/06/2023	8202.2000	8202200.0000
12/06/2023	7369.1000	7369100.0000
13/06/2023	6344.8000	6344800.0000

14/06/2023	7005.0000	7005000.0000
15/06/2023	7391.0000	7391000.0000
16/06/2023	8209.5000	8209500.0000
17/06/2023	7374.0000	7374000.0000
18/06/2023	7655.0000	7655000.0000
19/06/2023	7127.3000	7127300.0000
20/06/2023	7372.8000	7372800.0000
21/06/2023	8325.7000	8325700.0000
22/06/2023	8076.5000	8076500.0000
23/06/2023	8596.4000	8596400.0000
24/06/2023	7735.8000	7735800.0000
25/06/2023	6518.1000	6518100.0000
26/06/2023	7165.2000	7165200.0000
27/06/2023	6916.6000	6916600.0000
28/06/2023	5774.2000	5774200.0000
29/06/2023	6743.9000	6743900.0000
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02/07/2023	7474.3000	7474300.0000
03/07/2023	8011.0000	8011000.0000
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07/07/2023	6611.8000	6611800.0000
08/07/2023	6775.3000	6775300.0000
09/07/2023	7447.5000	7447500.0000
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11/07/2023	6929.8000	6929800.0000
12/07/2023	6834.5000	6834500.0000
13/07/2023	5648.4000	5648400.0000
14/07/2023	7560.5000	7560500.0000
15/07/2023	6781.9000	6781900.0000
16/07/2023	6843.7000	6843700.0000
17/07/2023	7168.9000	7168900.0000
18/07/2023	6355.4000	6355400.0000
19/07/2023	6295.4000	6295400.0000
20/07/2023	6523.5000	6523500.0000
21/07/2023	6152.4000	6152400.0000
22/07/2023	6332.4000	6332400.0000
23/07/2023	7267.8000	7267800.0000
24/07/2023	6289.4000	6289400.0000
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27/07/2023	5843.7000	5843700.0000
28/07/2023	5931.3000	5931300.0000
29/07/2023	7107.0000	7107000.0000
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31/07/2023	6432.8000	6432800.0000
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02/08/2023	6538.9000	6538900.0000
03/08/2023	5017.6000	5017600.0000
04/08/2023	7526.5000	7526500.0000
05/08/2023	6154.8000	6154800.0000
06/08/2023	5438.6000	5438600.0000
07/08/2023	6800.8000	6800800.0000
08/08/2023	6166.4000	6166400.0000
09/08/2023	6354.2000	6354200.0000
10/08/2023	6024.6000	6024600.0000
11/08/2023	5957.6000	5957600.0000
12/08/2023	6038.6000	6038600.0000
13/08/2023	5875.1000	5875100.0000

14/08/2023	6663.6000	6663600.0000
15/08/2023	5863.5000	5863500.0000
16/08/2023	6379.0000	6379000.0000
17/08/2023	7177.4000	7177400.0000
18/08/2023	6085.1000	6085100.0000
19/08/2023	6171.2000	6171200.0000
20/08/2023	6370.0000	6370000.0000
21/08/2023	6509.6000	6509600.0000
22/08/2023	6014.0000	6014000.0000
23/08/2023	6507.4000	6507400.0000
24/08/2023	6102.1000	6102100.0000
25/08/2023	6003.1000	6003100.0000
26/08/2023	5852.0000	5852000.0000
27/08/2023	5979.9000	5979900.0000
28/08/2023	6699.1000	6699100.0000
29/08/2023	6405.0000	6405000.0000
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17/09/2023	6952.0000	6952000.0000
18/09/2023	6222.3000	6222300.0000
19/09/2023	6250.2000	6250200.0000
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26/09/2023	6907.9000	6907900.0000
27/09/2023	6515.5000	6515500.0000
28/09/2023	6592.5000	6592500.0000
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08/10/2023	6094.0000	6094000.0000
09/10/2023	5880.4000	5880400.0000
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12/10/2023	5835.8000	5835800.0000
13/10/2023	5980.5000	5980500.0000

14/10/2023	6063.7000	6063700.0000
15/10/2023	6208.1000	6208100.0000
16/10/2023	6651.9000	6651900.0000
17/10/2023	6093.0000	6093000.0000
18/10/2023	5548.9000	5548900.0000
19/10/2023	7166.7000	7166700.0000
20/10/2023	6030.2000	6030200.0000
21/10/2023	6213.5000	6213500.0000
22/10/2023	5839.9000	5839900.0000
23/10/2023	6610.0000	6610000.0000
24/10/2023	5744.1000	5744100.0000
25/10/2023	6165.6000	6165600.0000
26/10/2023	5216.8000	5216800.0000
27/10/2023	5958.5000	5958500.0000
28/10/2023	6075.0000	6075000.0000
29/10/2023	6067.9000	6067900.0000
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06/12/2023	6408.2000	6408200.0000
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16/12/2023	5206.3000	5206300.0000
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18/12/2023	6913.2000	6913200.0000
19/12/2023	5634.0000	5634000.0000
20/12/2023	6463.2000	6463200.0000
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22/12/2023	6540.0000	6540000.0000
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26/12/2023	6385.7000	6385700.0000
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28/12/2023	5936.4000	5936400.0000
29/12/2023	6341.3000	6341300.0000
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31/12/2023	5828.0000	5828000.0000