

**Part III Form 2
Section 11. ANNUAL REPORT.**

Drinking-Water System Number:	210000639
Drinking-Water System Name:	Rockland Water Treatment Plant
Drinking-Water System Owner:	The Corporation of the City of Clarence-Rockland
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 1 st to December 31, 2017

<p><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></p> <p>Does your Drinking-Water System serve more than 10,000 people? Yes [x] No []</p> <p>Is your annual report available to the public at no charge on a web site on the Internet? Yes [x] No []</p> <p>Location where Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</p> <div style="border: 1px solid black; padding: 5px;"> Municipal Office The City of Clarence-Rockland 1560 Laurier Street Rockland K4K 1P7 </div>	<p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served:</p> <div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 5px auto;">N/A</div> <p>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [] No []</p> <p>Number of Interested Authorities you report to:</p> <div style="border: 1px solid black; padding: 2px; width: fit-content; margin: 5px auto;">N/A</div> <p>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [] No []</p>
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List Drinking-Water Systems, which receive all of their drinking water from your system:

N/A

Did you provide a copy of your annual report to all Drinking-Water System owners that are connected to you and to whom you provide all of its drinking water? Yes [] No []

Indicate how you notified system users that your annual report is available, and is free of charge.

Public access/notice via the web

Public access/notice via Government Office

Public access/notice via a newspaper

Public access/notice via Public Request

Public access/notice via a Public Library

Public access/notice via other method: _____

Describe your Drinking-Water System

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 Hamelets (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 395 m³. Secondary disinfection is achieved via chloramination at the discharge of the plant. 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.

The chemical feed systems found within facility consist of chemical pumps, storage tanks, piping and associated appurtenances to dose Polyaluminium Hydroxide Sulfate, Polyelectrolyte, Sodium Hydroxide, Ammonium Sulphate and Sodium Hypochlorite.

Backwash water from filtration is sent into a Settling Tank where supernatant is discharged to storm sewers under Section C of the Municipal Drinking Water License and the discharge of excess sludge is sent to sanitary sewers.

The Water Treatment Plant and Booster station is equipped with two stand by diesel generators.

The Facility Operates under the Municipal Drinking Water License 175-101, Drinking Water Works Permit 175-201, and PTTW # 2563-7H9QE8

List all water treatment chemicals used over this reporting period:

Polyaluminium Hydroxide Sulfate, Polyelectrolyte, Sodium Hydroxide, Ammonium Sulphate and Sodium Hypochlorite.

Were any significant expenses incurred to?

- Install required equipment
- Repair required equipment
- Replace required equipment

Describe

- Repaired water main failure (fusion) on Baseline rd. Jan. 18th
- Topped up anthracite in filter #1, Feb. 15th
- Repairs to water service at 1700 St-Laurent, Feb. 17th
- Replaced sodium hydroxide tank liner (Kentain) Feb. 27th
- New water main on St-Joseph, chlorinated, tested and connected March 14th
- Power monitoring on-line at WTP March 15th
- Replaced flow meter for filter #1 March 16th
- Replaced water service saddle for 215 Francoise st. March 16th
- Chlorination and sampling of new water main Rockland east (Normand excavation) April 3rd
- New water main extension, Clarence-Crossing, May 23rd
- Water main repair near Carrefour Jeunesse School, June 16th
- Water main repair on Edwards st. (near Mr. Gas) June 26th
- Water main repair, Patricia st, (cast iron) July 5th
- Replaced a 8" valve on Patricia-Charron st., July 13th
- Removed PRV in Cheney distribution, July 26th
- Repaired water main on Victoria st. due to damage from core drilling Aug. 16th
- Kemira cleaned out coagulant tank due to bad batch of product Aug. 17th
- Water main repair on Edwards st. (new 4 plex) damaged while tapping services Aug. 25th
- Repaired water main on Laurier st. near Edwards, 8 inch cast iron failed Aug. 27th
- Performed UDF flushing in Rockland Sept. 6th to Oct. 20th
- New water main connection from Woods st. to Chamberland st. Sept. 9th
- Water service repair on Du Chateau st. Sept. 27th
- Water services (2) repair near 596 Gareau, Oct. 31st
- Water main repair near 896 Notre-Dame, Dec. 21st
- Water service repair corner St-Joseph and Martin st., Dec. 27th

Drinking-Water Systems Regulation O. Reg. 170/03

Provide details on the notices submitted in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 and reported to Spills Action Centre

- No adverse or issues reported during the 2017 calendar year

Microbiological testing done under section 8-2 during this reporting period

	Number of Samples	Range of E.Coli Or Fecal Results (#-#)	Range of Total Coliform Results (#-#)	Number of HPC Samples Or Background Colony Counts	Range of HPC Results (#-#) Or Background Colony Counts
Raw	52	0 – 1000	0 – 1380	N/A	N/A
Treated	52	0 – 0	0 – 0	52	0 - 4
Distribution	403	0 – 0	0 – 0	152	0 - 16

Operational testing done under Schedule 7, 8 or 9 during the period covered by this Annual Report.

	Number of Grab Samples	Range of Results (#-#)
Turbidity	8760	0.05 – .88 NTU
Chlorine	8760	Free 0.20 – 2.96mg/l Comb .33 – 2.94mg/l
Chlorine Residual Distribution System	8760	0.53 – 2.70 mg/l
Fluoride (If the DWS provides fluoridation)	N/A	N/A

NOTE: For continuous monitors use 8760 as the number of samples.

*NOTE: Record the unit of measure if it is **not** milligrams per litre.*

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	Unit of Measure
Municipal Drinking Water Licence #175-101	Suspended Solids	March 21 st 2017	<3	mg/l
Municipal Drinking Water Licence #175-101	Suspended Solids	April 18 th 2017	7	mg/l
Municipal Drinking Water Licence #175-101	Suspended Solids	May 30 th 2017	9	mg/l
Municipal Drinking Water Licence #175-101	Suspended Solids	June 20 th 2017	3	mg/l
Municipal Drinking Water Licence #175-101	Suspended Solids	July 18 th 2017	5	mg/l
Municipal Drinking Water Licence #175-101	Suspended Solids	Aug 29 th 2017	4	mg/l
Municipal Drinking Water Licence #175-101	Suspended Solids	Sept 19 th 2017	<3	mg/l

Municipal Drinking Water Licence #175-101	Suspended Solids	Oct 27 th 2017	6	mg/l
Municipal Drinking Water Licence #175-101	Suspended Solids	Nov 24 th 2017	5	mg/l
Municipal Drinking Water Licence #175-101	Suspended Solids	Dec 29 th 2017	8	mg/l

Summary of Inorganic parameters tested during this reporting period or most recent

Parameter	Sample Date	Result Value	Unit of Measure	MAC	Exceedances	
					MAC	½ MAC
Antimony	July 18 th 2017	<0.0001	mg/l	.006	No	No
Arsenic	July 18 th 2017	0.0003	mg/l	.025	No	No
Barium	July 18 th 2017	0.018	mg/l	1.0	No	No
Boron	July 18 th 2017	0.009	mg/l	5.0	No	No
Cadmium	July 18 th 2017	<0.000014	mg/l	.005	No	No
Chromium	July 18 th 2017	<0.002	mg/l	.05	No	No
Mercury	July 18 th 2017	<0.00002	mg/l	.001	No	No
Selenium	July 18 th 2017	<0.001	mg/l	.01	No	No
Uranium	July 18 th 2017	<0.00005	mg/l	.02	No	No
Nitrite	Jan 10 th 2017	<0.1	mg/l	1.0	No	No
Nitrate	Jan 10 th 2017	0.3	mg/l	10.0	No	No
Nitrite	April 10 th 2017	<0.1	mg/l	1.0	No	No
Nitrate	April 10 th 2017	0.4	mg/l	10.0	No	No
Nitrite	July 18 th 2017	<0.1	mg/l	1.0	No	No
Nitrate	July 18 th 2017	0.2	mg/l	10.0	No	No
Nitrite	Oct 10 th 2017	<0.1	mg/l	1.0	No	No
Nitrate	Oct 10 th 2017	0.2	mg/l	10.0	No	No
HAA	Jan 10 th 2017	0.0273	mg/l	NA	No	No
HAA	April 10 th 2017	0.0263	mg/l	NA	No	No
HAA	July 18 th 2017	0.0301	mg/l	NA	No	No
HAA	Oct 10 th 2017	0.0423	mg/l	NA	No	No

Summary of lead testing under Schedule 15.1 during this reporting period

(Applicable to the following drinking water systems; large municipal residential systems, small Municipal residential systems and non-municipal year-round residential systems)

Location Type	Number of Samples	Ph Range	Alkalinity Range	Range of Lead Results (min#) – (max #)	Number of Exceedances
Plumbing	N/A	N/A	NA	Exempted	0
Distribution	8	7.48 – 7.83	34 – 48mg/l	Exempted	0

Summary of Organic parameters sampled during this reporting period or most recent

Parameter	Sample Date	Result Value	Unit of Measure	MAC	Exceedance	
					MAC	1/2MAC
Alachlor	July 18 th 2017	<0.0003	mg/l	5.00	No	No
Atrazine + N-dealkylated metabolites	July 18 th 2017	<0.0005	mg/l	1.00	No	No
Azinphos-methyl	July 18 th 2017	<0.001	mg/l	20.00	No	No
Benzene	July 18 th 2017	<0.0005	mg/l	5.00	No	No
Benzo(a)pyrene	July 18 th 2017	<0.000005	mg/l	0.01	No	No
Bromoxynil	July 18 th 2017	<0.0003	mg/l	5.00	No	No
Carbaryl	July 18 th 2017	<0.003	mg/l	90.00	No	No
Carbofuran	July 18 th 2017	<0.001	mg/l	90.00	No	No
Carbon Tetrachloride	July 18 th 2017	<0.0002	mg/l	2.00	No	No
Chlorpyrifos	July 18 th 2017	<0.0005	mg/l	90.00	No	No
Diazinon	July 18 th 2017	<0.001	mg/l	20.00	No	No
Dicamba	July 18 th 2017	<0.005	mg/l	120.00	No	No
1,2-Dichlorobenzene	July 18 th 2017	<0.0001	mg/l	200.00	No	No
1,4-Dichlorobenzene	July 18 th 2017	<0.0002	mg/l	5.00	No	No
1,2-Dichloroethane	July 18 th 2017	<0.0001	mg/l	5.00	No	No
1,1-Dichloroethene	July 18 th 2017	<0.0001	mg/l	14.00	No	No
Dichloromethane (Methylene Chloride)	July 18 th 2017	<0.0003	mg/l	50.00	No	No
2-4 Dichlorophenol	July 18 th 2017	<0.0001	mg/l	900.00	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	July 18 th 2017	<0.005	mg/l	100.00	No	No
Diclofop-methyl	July 18 th 2017	<0.0005	mg/l	9.00	No	No
Dimethoate	July 18 th 2017	<0.001	mg/l	20.00	No	No
Diquat	July 18 th 2017	<0.005	mg/l	70.00	No	No
Diuron	July 18 th 2017	<0.005	mg/l	150.00	No	No
Glyphosate	July 18 th 2017	<0.025	mg/l	280.00	No	No
Malathion	July 18 th 2017	<0.005	mg/l	190.00	No	No
Metolachlor	July 18 th 2017	<0.003	mg/l	50.00	No	No
Metribuzin	July 18 th 2017	<0.003	mg/l	80.00	No	No
Monochlorobenzene	July 18 th 2017	<0.0002	mg/l	80.00	No	No
Paraquat	July 18 th 2017	<0.001	mg/l	10.00	No	No
Pentachlorophenol	July 18 th 2017	<0.0001	mg/l	3.00	No	No
Phorate	July 18 th 2017	<0.0003	mg/l	60.00	No	No
Picloram	July 18 th 2017	<0.005	mg/l	2.00	No	No
Polychlorinated Biphenyls(PCB)	July 18 th 2017	<0.00005	mg/l	190.00	No	No
Prometryne	July 18 th 2017	<0.0001	mg/l	1.00	No	No

Simazine	July 18 th 2017	<0.0005	mg/l	10.00	No	No
THM Distribution (NOTE: show latest annual average)	Oct 10 th 2017	43.2	ug/l	100	No	NA
Terbufos	July 18 th 2017	<0.0003	mg/l	1.00	No	No
Tetrachloroethylene	July 18 th 2017	<0.0002	mg/l	30.00	No	No
2,3,4,6-Tetrachlorophenol	July 18 th 2017	<0.0001	mg/l	100.00	No	No
Triallate	July 18 th 2017	<0.010	mg/l	230.00	No	No
Trichloroethylene	July 18 th 2017	<0.0001	mg/l	50.00	No	No
2,4,6-Trichlorophenol	July 18 th 2017	<0.0001	mg/l	5.00	No	No
Trifluralin	July 18 th 2017	<0.0005	mg/l	45.00	No	No
Vinyl Chloride	July 18 th 2017	<0.0002	mg/l	1.00	No	No
2-Methyl-4-chlorophenoxyacetic acid MCPA	July 18 th 2017	<.00012	mg/l	.10	No	No

List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards.

Parameter	Result Value	Unit of Measure	Date of Sample

(Only if DWS category is large municipal residential, small municipal residential, large municipal non-residential, non municipal year round residential, large non municipal non residential)