

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, 2011

<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 <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Is your annual report available to the public at no charge on a web site on the Internet? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></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: <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 5px auto;">N/A</div> </p> <p>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>Number of Interested Authorities you report to: <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 5px auto;">N/A</div> </p> <p>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes <input type="checkbox"/> No <input type="checkbox"/></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

- Watermain repair on Bouvier Rd. maintained pressure in system for Bourget, Hammond and Cheney, Preventive boil water advisory. Feb. 8th
- Replace and re-program a communication board in PLC July 16th
- The construction of the new Cheney elevated water storage tank put in service September 1st 2011

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

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
Feb. 8 th 2011	Preventive Boil Water Advisory	5	All samples no TC EC	Sampled area after major watermain repair on Bouvier Rd.	Feb. 11 th 2011
April 14 th 2011	Sodium	20.8	mg/l	Resample & report. Continue to follow schedule. Inform EOHU of any changes	April 28 th 2011
September 8 th 2011	Total Coliform Distribution system	2	mg/l	Resample	September 12 th 2011
October 9 th 2011	Filter effluent Turbidity	1.33	NTU	Decreased pre caustic dosage. Repair programming issue	October 10 th 2011
December 1 st 2011	Total Coliform Distribution system	1	mg/l	Resample	December 2 nd 2011

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 - 368	0 - 5700		
Treated	52	0 - 0	0 - 0	52	0 - 4
Distribution	420	0 - 0	0 - 2	155	0 - 120

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	0.08 - 1.33 NTU
Chlorine	8760	0.90 - 2.58 mg/l
Chlorine Residual Distribution System	8760	1.08 - 2.52 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	Jan. 31 st 2011	3	mg/l
Municipal Drinking Water Licence #175-101	Suspended Solids	Feb. 15 th 2011	<3	mg/l
Municipal Drinking Water Licence #175-101	Suspended Solids	Mar. 30 th 2011	4	mg/l
Municipal Drinking Water Licence #175-101	Suspended Solids	Apr. 12 th 2011	<3	mg/l
Municipal Drinking Water Licence #175-101	Suspended Solids	May 24 th 2011	7	mg/l
Municipal Drinking Water Licence #175-101	Suspended Solids	Jun 28 th 2011	3	mg/l
Municipal Drinking Water Licence #175-101	Suspended Solids	Jul 26 th 2011	3	mg/l
Municipal Drinking Water Licence #175-101	Suspended Solids	Aug 15 th 2011	3	mg/l
Municipal Drinking Water Licence #175-101	Suspended Solids	Sept 20 th 2011	4	mg/l
Municipal Drinking Water Licence #175-101	Suspended Solids	Oct. 18 th 2011	<3	mg/l
Municipal Drinking Water Licence #175-101	Suspended Solids	Nov 15 th 2011	3	mg/l
Municipal Drinking Water Licence #175-101	Suspended Solids	Dec. 13 th 2011	<3	mg/l

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	April 14 th 2011	<0.0001	mg/l	No
Arsenic	April 14 th 2011	0.0003	mg/l	No
Barium	April 14 th 2011	0.018	mg/l	No
Boron	April 14 th 2011	0.013	mg/l	No
Cadmium	April 14 th 2011	<0.00002	mg/l	No
Chromium	April 14 th 2011	<0.002	mg/l	No
Mercury	April 14 th 2011	<0.00002	mg/l	No
Selenium	April 14 th 2011	<0.001	mg/l	No
Uranium	April 14 th 2011	<0.00005	mg/l	No
Nitrite	Jan 31 st 2011	<0.1	mg/l	No
Nitrate	Jan 31 st 2011	0.3	mg/l	No
Nitrite	April 14 th 2011	<0.1	mg/l	No
Nitrate	April 14 th 2011	0.4	mg/l	No
Nitrite	July 12 th 2011	<0.1	mg/l	No
Nitrate	July 12 th 2011	0.2	mg/l	No
Nitrite	Oct. 19 th 2011	<0.1	mg/l	No
Nitrate	Oct 19 th 2011	0.2	mg/l	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	Range of Lead Results (min#) – (max #)	Number of Exceedances
Plumbing	N/A		
Distribution	N/A		

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	April 14 th 2011	<0.0003	mg/l	No
Aldicarb	April 14 th 2011	<0.003	mg/l	No
Aldrin + Dieldrin	April 14 th 2011	<0.00002	mg/l	No
Atrazine + N-dealkylated metabolites	April 14 th 2011	<0.0005	mg/l	No
Azinphos-methyl	April 14 th 2011	<0.001	mg/l	No
Bendiocarb	April 14 th 2011	<0.003	mg/l	No
Benzene	April 14 th 2011	<0.0005	mg/l	No
Benzo(a)pyrene	April 14 th 2011	<0.000005	mg/l	No
Bromoxynil	April 14 th 2011	<0.0003	mg/l	No
Carbaryl	April 14 th 2011	<0.003	mg/l	No
Carbofuran	April 14 th 2011	<0.001	mg/l	No

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Carbon Tetrachloride	April 14 th 2011	<0.0002	mg/l	No
Chlordane (Total)	April 14 th 2011	<0.00004	mg/l	No
Chlorpyrifos	April 14 th 2011	<0.0005	mg/l	No
Cyanazine	April 14 th 2011	<0.0005	mg/l	No
Diazinon	April 14 th 2011	<0.001	mg/l	No
Dicamba	April 14 th 2011	<0.005	mg/l	No
1,2-Dichlorobenzene	April 14 th 2011	<0.0001	mg/l	No
1,4-Dichlorobenzene	April 14 th 2011	<0.0002	mg/l	No
Dichlorodiphenyltrichloroethane (DDT) + metabolites	April 14 th 2011	<0.0001	mg/l	No
1,2-Dichloroethane	April 14 th 2011	<0.0001	mg/l	No
1,1-Dichloroethylene (vinylidene chloride)	April 14 th 2011	<0.0001	mg/l	No
Dichloromethane	April 14 th 2011	<0.0003	mg/l	No
2-4 Dichlorophenol	April 14 th 2011	<0.0001	mg/l	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	April 14 th 2011	<0.005	mg/l	No
Diclofop-methyl	April 14 th 2011	<0.0005	mg/l	No
Dimethoate	April 14 th 2011	<0.001	mg/l	No
Dinoseb	April 14 th 2011	<0.0005	mg/l	No
Diquat	April 14 th 2011	<0.005	mg/l	No
Diuron	April 14 th 2011	<0.005	mg/l	No
Glyphosate	April 14 th 2011	<0.025	mg/l	No
Heptachlor + Heptachlor Epoxide	April 14 th 2011	<0.0001	mg/l	No
Linadane (Total)	April 14 th 2011	<0.0001	mg/l	No
Malathion	April 14 th 2011	<0.005	mg/l	No
Methoxychlor	April 14 th 2011	<0.0001	mg/l	No
Metolachlor	April 14 th 2011	<0.003	mg/l	No
Metribuzin	April 14 th 2011	<0.003	mg/l	No
Monochlorobenzene	April 14 th 2011	<0.0002	mg/l	No
Paraquat	April 14 th 2011	<0.001	mg/l	No
Parathion	April 14 th 2011	<0.003	mg/l	No
Pentachlorophenol	April 14 th 2011	<0.0001	mg/l	No
Phorate	April 14 th 2011	<0.0003	mg/l	No
Picloram	April 14 th 2011	<0.005	mg/l	No
Polychlorinated Biphenyls(PCB)	April 14 th 2011	<0.00005	mg/l	No
Prometryne	April 14 th 2011	<0.0001	mg/l	No
Simazine	April 14 th 2011	<0.0005	mg/l	No
THM (NOTE: show latest annual average)	Oct. 19 th 2011	0.058175	mg/l	No
Temephos	April 14 th 2011	<0.010	mg/l	No
Terbufos	April 14 th 2011	<0.0003	mg/l	No
Tetrachloroethylene	April 14 th 2011	<0.0002	mg/l	No
2,3,4,6-Tetrachlorophenol	April 14 th 2011	<0.0001	mg/l	No
Triallate	April 14 th 2011	<0.010	mg/l	No
Trichloroethylene	April 14 th 2011	<0.0001	mg/l	No

2,4,6-Trichlorophenol	April 14 th 2011	<0.0001	mg/l	No
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	April 14 th 2011	<0.010	mg/l	No
Trifluralin	April 14 th 2011	<0.0005	mg/l	No
Vinyl Chloride	April 14 th 2011	<0.0002	mg/l	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)