ANNUAL REPORT

ONTARIO REGULATION 170/03
SECTION 11

EVERETT
DRINKING WATER SYSTEM

FOR THE PERIOD:
JANUARY 1, 2019 – DECEMBER 31, 2019

Prepared for the Corporation of the Township of Adjala-Tosorontio
by the Ontario Clean Water Agency

ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

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

Drinking-Water System Number:	**220011680**
Drinking-Water System Name:	**Everett Drinking Water System**
Drinking-Water System Owner:	The Corporation of the Township of Adjala-Tosorontio
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	**January 1, 2019 to December 31, 2019**

Does your Drinking-Water System serve more than 10,000 people?

No

Is your annual report available to the public at no charge on a web site on the Internet?

Yes

Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.

Summary Report is available for inspection at the Township of Adjala-Tosorontio Municipal Office at 7855 Side Road 30, Alliston, ON or on the following website: http://www.adjtos.ca

List all Drinking-Water Systems (if any), which receive all of their drinking water from your system:

Drinking Water System Name	Drinking Water System Number
Not applicable	Not applicable

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?

Not Applicable

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

- **[X] Public access/notice via the web**
- **[X] Public access/notice via Government Office**
- **[ ] Public access/notice via a newspaper**
- **[X] Public access/notice via Public Request**
- **[ ] Public access/notice via a Public Library**
- **[ ] Public access/notice via other method**

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Description of Drinking-Water System:

The Everett water system is classified as a Large Municipal Residential water system with 653 services. Water is supplied via three (3) municipal wells, two (2) pumphouses and an in ground reservoir. Inspections and maintenance duties are conducted by Ontario Clean Water Agency staff on a regular basis to maintain compliance with Ontario Regulation 170/03 to ensure that Everett's water supply is safe to drink.

List of water treatment chemicals used during the reporting period:

- Sodium Hypochlorite 12% Solution NSF, Primary Disinfection

Significant expenses incurred to:

[ ] Install required equipment
[X] Purchase required equipment
[ ] Repair required equipment
[X] Replace required equipment

Description of significant expenses incurred:

1. Replaced Grohal Pumphouse Alarm Dialer

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 (yyyy/mm/dd)	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date (yyyy/mm/dd)
Not Applicable					

Table 1: Microbiological testing done under the Schedule 11 of Regulation 170/03 during this reporting period.

Location	Number of Samples	Range of E. Coli or Fecal Results		Range of Total Coliform Results		Number of HPC Samples	Range of HPC Samples	
		Min	Max	Min	Max		Min	Max
Raw - RW1	52	0	0	0	0	N/A	N/A	N/A
Raw - RW2	52	0	0	0	0	N/A	N/A	N/A
Raw - RW3	52	0	0	0	0	N/A	N/A	N/A
Treated - TW1	52	0	0	0	0	52	0	3
Treated - TW2	52	0	0	0	0	52	0	4
Distribution - DW	132	0	0	0	0	52	0	17

Note:

- *RW1 – Grohal Production Well*
- *RW2 – Grohal Standby Well*
- *RW3 – Ballpark Production Well*
- *TW1 – Grohal Treated Water*
- *TW2 – Ballpark Treated Water*

Table 2: Operational testing done under Schedule 7 of Regulation 170/03 during the period covered by this Annual Report.

Location & Test	Number of Samples	Range of Results	
		Minimum	Maximum
Turbidity, Raw RW1 (Grab) [NTU]	12	0.19	1.13
Turbidity, Raw RW2 (Grab) [NTU]	12	0.2	4.92
Turbidity, Raw RW3 (Grab) [NTU]	12	0.22	1.56
Turbidity, Treated Grohal (Continuous) [NTU]*	N/A*	N/A*	N/A*
Turbidity, Treated Ballpark (Continuous) [NTU]^	N/A^	N/A^	N/A^
Free Chlorine Residual, Treated Grohal (Continuous) [mg/L]	8760	0+	3.97
Free Chlorine Residual, Treated Ballpark (Continuous) [mg/L]	8760	0.02	2.42
Free Chlorine Residual, Treated Grohal (Grab) [mg/L]	165	0.42	2.25
Free Chlorine Residual, Treated Ballpark (Grab) [mg/L]	167	0.57	2.15
Total Chlorine Residual, Treated Grohal (Grab) [mg/L]	165	0.59	2.31
Total Chlorine Residual, Treated Ballpark (Grab) [mg/L]	167	0.73	2.3
Free Chlorine Residual, Distribution (Grab) [mg/L]	367	0.39	1.98

Note: The number of samples used for a continuous monitoring unit is 8760.
**The treated water turbidity analyzer at Grohal (TW1) was removed from service as of December 4, 2018. It is non-regulatory related monitoring equipment so its removal was captured with a Form 2.*
^The treated water turbidity analyzer at Ballpark (TW2) was removed from service as of September 22, 2017. It is non-regulatory related monitoring equipment so its removal was captured with a Form 2.
+The minimum treated free chlorine residual did not result in an Adverse Observation because the well was locked out during the event. Adequate CT achieved.

Table 3: Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order or other legal instrument.

Date of Legal Instrument Issued	Parameter	Date Sampled	Result	Unit of Measure
Not Applicable				

Table 4: Summary of Inorganic parameters tested during this reporting period or the most recent sample results

Parameter	Sample Date (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration (MAC)	Number of Exceedances	
				MAC	½ MAC
Antimony: Sb (µg/L) - TW1	2017/01/11	0.03	6.0	No	No
Antimony: Sb (µg/L) - TW2	2017/01/11	<MDL 0.02	6.0	No	No
Arsenic: As (µg/L) - TW1	2017/01/11	0.6	10.0	No	No
Arsenic: As (µg/L) - TW2	2017/01/11	<MDL 0.2	10.0	No	No
Barium: Ba (µg/L) - TW1	2017/01/11	77.8	1000.0	No	No
Barium: Ba (µg/L) - TW2	2017/01/11	88.3	1000.0	No	No
Boron: B (µg/L) - TW1	2017/01/11	18.0	5000.0	No	No
Boron: B (µg/L) - TW2	2017/01/11	31.0	5000.0	No	No
Cadmium: Cd (µg/L) - TW1	2017/01/11	<MDL 0.003	5.0	No	No

Parameter	Sample Date (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration (MAC)	Number of Exceedances	
				MAC	½ MAC
Cadmium: Cd (µg/L) - TW2	2017/01/11	<MDL 0.003	5.0	No	No
Chromium: Cr (µg/L) - TW1	2017/01/11	0.36	50.0	No	No
Chromium: Cr (µg/L) - TW2	2017/01/11	0.34	50.0	No	No
Mercury: Hg (µg/L) - TW1	2017/01/11	<MDL 0.01	1.0	No	No
Mercury: Hg (µg/L) - TW2	2017/01/16	<MDL 0.01	1.0	No	No
Selenium: Se (µg/L) - TW1	2017/01/11	0.04	50.0	No	No
Selenium: Se (µg/L) - TW2	2017/01/11	<MDL 0.04	50.0	No	No
Uranium: U (µg/L) - TW1	2017/01/11	0.088	20.0	No	No
Uranium: U (µg/L) - TW2	2017/01/11	0.016	20.0	No	No
Fluoride (mg/L) - TW1	2017/01/11	0.12	1.5	No	No
Fluoride (mg/L) - TW2	2017/01/11	0.15	1.5	No	No
Nitrite (mg/L) - TW1	2019/01/07	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW1	2019/04/01	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW1	2019/07/16	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW1	2019/10/23	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW2	2019/01/07	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW2	2019/04/01	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW2	2019/07/16	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW2	2019/10/23	<MDL 0.003	1.0	No	No
Nitrate (mg/L) - TW1	2019/01/07	0.016	10.0	No	No
Nitrate (mg/L) - TW1	2019/04/01	<MDL 0.006	10.0	No	No
Nitrate (mg/L) - TW1	2019/07/16	<MDL 0.006	10.0	No	No
Nitrate (mg/L) - TW1	2019/10/23	<MDL 0.006	10.0	No	No
Nitrate (mg/L) - TW2	2019/01/07	0.009	10.0	No	No
Nitrate (mg/L) - TW2	2019/04/01	<MDL 0.006	10.0	No	No
Nitrate (mg/L) - TW2	2019/07/16	<MDL 0.006	10.0	No	No
Nitrate (mg/L) - TW2	2019/10/23	<MDL 0.006	10.0	No	No
Sodium: Na (mg/L) - TW1	2017/01/11	10.4	20*	No	Yes
Sodium: Na (mg/L) - TW2	2017/01/11	14.1	20*	No	Yes

Note: MDL = Minimum Detection Limit
**There is no "MAC" for Sodium. The aesthetic objective is 200 mg/L. The local Medical Officer of Health should be notified 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.*

Table 5: Summary of lead testing under Schedule 15.1 during this reporting period

Location Type	Number of Samples	Range of Lead Results		MAC	Number of Exceedances
		Minimum	Maximum		
Lead – Plumbing (µg/L)	Not Applicable - Relief from all Plumbing Requirements*				
Lead – Distribution** (µg/L)	Not Applicable for Reporting Period				

Note: The Alkalinity results for 2019 were 179, 198, 191, and 201 mg/L as $CaCO_3$.
**This system qualifies for the plumbing exemption as per O. Regulation 170/03 Schedule 15.1-5 (9) (10).*

***Distribution lead samples are taken every 36 months. The next set of distribution lead samples is scheduled for 2021.*

Table 6: Summary of Organic parameters sampled during this reporting period or the most recent sample results

Parameter	Sample Date (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration (MAC)	Number of Exceedances	
				MAC	½ MAC
Alachlor (µg/L) - TW1	2017/01/11	<MDL 0.02	5.0	No	No
Alachlor (µg/L) - TW2	2017/01/11	<MDL 0.02	5.0	No	No
Atrazine + N-dealkylated metabolites (µg/L) - TW1	2017/01/11	<MDL 0.01	5.0	No	No
Atrazine + N-dealkylated metabolites (µg/L) - TW2	2017/01/11	<MDL 0.01	5.0	No	No
Azinphos-methyl (µg/L) - TW1	2017/01/11	<MDL 0.05	20.0	No	No
Azinphos-methyl (µg/L) - TW2	2017/01/11	<MDL 0.05	20.0	No	No
Benzene (µg/L) - TW1	2017/01/11	<MDL 0.32	1.0	No	No
Benzene (µg/L) - TW2	2017/01/11	<MDL 0.32	1.0	No	No
Benzo(a)pyrene (µg/L) - TW1	2017/01/11	<MDL 0.004	0.01	No	No
Benzo(a)pyrene (µg/L) - TW2	2017/01/11	<MDL 0.004	0.01	No	No
Bromoxynil (µg/L) - TW1	2017/01/11	<MDL 0.33	5.0	No	No
Bromoxynil (µg/L) - TW2	2017/01/11	<MDL 0.33	5.0	No	No
Carbaryl (µg/L) - TW1	2017/01/11	<MDL 0.05	90.0	No	No
Carbaryl (µg/L) - TW2	2017/01/11	<MDL 0.05	90.0	No	No
Carbofuran (µg/L) - TW1	2017/01/11	<MDL 0.01	90.0	No	No
Carbofuran (µg/L) - TW2	2017/01/11	<MDL 0.01	90.0	No	No
Carbon Tetrachloride (µg/L) - TW1	2017/01/11	<MDL 0.16	2.0	No	No
Carbon Tetrachloride (µg/L) - TW2	2017/01/11	<MDL 0.16	2.0	No	No
Chlorpyrifos (µg/L) - TW1	2017/01/11	<MDL 0.02	90.0	No	No
Chlorpyrifos (µg/L) - TW2	2017/01/11	<MDL 0.02	90.0	No	No
Diazinon (µg/L) - TW1	2017/01/11	<MDL 0.02	20.0	No	No
Diazinon (µg/L) - TW2	2017/01/11	<MDL 0.02	20.0	No	No
Dicamba (µg/L) - TW1	2017/01/11	<MDL 0.2	120.0	No	No
Dicamba (µg/L) - TW2	2017/01/11	<MDL 0.2	120.0	No	No
1,2-Dichlorobenzene (µg/L) - TW1	2017/01/11	<MDL 0.41	200.0	No	No
1,2-Dichlorobenzene (µg/L) - TW2	2017/01/11	<MDL 0.41	200.0	No	No
1,4-Dichlorobenzene (µg/L) - TW1	2017/01/11	<MDL 0.36	5.0	No	No
1,4-Dichlorobenzene (µg/L) - TW2	2017/01/11	<MDL 0.36	5.0	No	No
1,2-Dichloroethane (µg/L) - TW1	2017/01/11	<MDL 0.35	5.0	No	No
1,2-Dichloroethane (µg/L) - TW2	2017/01/11	<MDL 0.35	5.0	No	No
1,1-Dichloroethylene (µg/L) - TW1	2017/01/11	<MDL 0.33	14.0	No	No
1,1-Dichloroethylene (µg/L) - TW2	2017/01/11	<MDL 0.33	14.0	No	No
Dichloromethane (Methylene Chloride) (µg/L) - TW1	2017/01/11	<MDL 0.35	50.0	No	No
Dichloromethane (Methylene Chloride) (µg/L) - TW2	2017/01/11	<MDL 0.35	50.0	No	No

Parameter	Sample Date (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration (MAC)	Number of Exceedances	
				MAC	½ MAC
2,4-Dichlorophenol (µg/L) - TW1	2017/01/11	<MDL 0.15	900.0	No	No
2,4-Dichlorophenol (µg/L) - TW2	2017/01/11	<MDL 0.15	900.0	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (µg/L) - TW1	2017/01/11	<MDL 0.19	100.0	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (µg/L) - TW2	2017/01/11	<MDL 0.19	100.0	No	No
Diclofop-methyl (µg/L) - TW1	2017/01/11	<MDL 0.4	9.0	No	No
Diclofop-methyl (µg/L) - TW2	2017/01/11	<MDL 0.4	9.0	No	No
Dimethoate (µg/L) - TW1	2017/01/11	<MDL 0.03	20.0	No	No
Dimethoate (µg/L) - TW2	2017/01/11	<MDL 0.03	20.0	No	No
Diquat (µg/L) - TW1	2017/01/11	<MDL 1.0	70.0	No	No
Diquat (µg/L) - TW2	2017/01/11	<MDL 1.0	70.0	No	No
Diuron (µg/L) - TW1	2017/01/11	<MDL 0.03	150.0	No	No
Diuron (µg/L) - TW2	2017/01/11	<MDL 0.03	150.0	No	No
Glyphosate (µg/L) - TW1	2017/01/11	<MDL 1.0	280.0	No	No
Glyphosate (µg/L) - TW2	2017/01/11	<MDL 1.0	280.0	No	No
Malathion (µg/L) - TW1	2017/01/11	<MDL 0.02	190.0	No	No
Malathion (µg/L) - TW2	2017/01/11	<MDL 0.02	190.0	No	No
Metolachlor (µg/L) - TW1	2017/01/11	<MDL 0.01	50.0	No	No
Metolachlor (µg/L) - TW2	2017/01/11	<MDL 0.01	50.0	No	No
Metribuzin (µg/L) - TW1	2017/01/11	<MDL 0.02	80.0	No	No
Metribuzin (µg/L) - TW2	2017/01/11	<MDL 0.02	80.0	No	No
Monochlorobenzene (Chlorobenzene) (µg/L) - TW1	2017/01/11	<MDL 0.3	80.0	No	No
Monochlorobenzene (Chlorobenzene) (µg/L) - TW2	2017/01/11	<MDL 0.3	80.0	No	No
Paraquat (µg/L) - TW1	2017/01/11	<MDL 1.0	10.0	No	No
Paraquat (µg/L) - TW2	2017/01/11	<MDL 1.0	10.0	No	No
PCB (µg/L) - TW1	2017/01/11	<MDL 0.04	3.0	No	No
PCB (µg/L) - TW2	2017/01/11	<MDL 0.04	3.0	No	No
Pentachlorophenol (µg/L) - TW1	2017/01/11	<MDL 0.15	60.0	No	No
Pentachlorophenol (µg/L) - TW2	2017/01/11	<MDL 0.15	60.0	No	No
Phorate (µg/L) - TW1	2017/01/11	<MDL 0.01	2.0	No	No
Phorate (µg/L) - TW2	2017/01/11	<MDL 0.01	2.0	No	No
Picloram (µg/L) - TW1	2017/01/11	<MDL 1.0	190.0	No	No
Picloram (µg/L) - TW2	2017/01/11	<MDL 1.0	190.0	No	No
Prometryne (µg/L) - TW1	2017/01/11	<MDL 0.03	1.0	No	No
Prometryne (µg/L) - TW2	2017/01/11	<MDL 0.03	1.0	No	No
Simazine (µg/L) - TW1	2017/01/11	<MDL 0.01	10.0	No	No
Simazine (µg/L) - TW2	2017/01/11	<MDL 0.01	10.0	No	No
Terbufos (µg/L) - TW1	2017/01/11	<MDL 0.01	1.0	No	No
Terbufos (µg/L) - TW2	2017/01/11	<MDL 0.01	1.0	No	No

Parameter	Sample Date (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration (MAC)	Number of Exceedances	
				MAC	½ MAC
Tetrachloroethylene (µg/L) - TW1	2017/01/11	<MDL 0.35	10.0	No	No
Tetrachloroethylene (µg/L) - TW2	2017/01/11	<MDL 0.35	10.0	No	No
2,3,4,6-Tetrachlorophenol (µg/L) - TW1	2017/01/11	<MDL 0.2	100.0	No	No
2,3,4,6-Tetrachlorophenol (µg/L) - TW2	2017/01/11	<MDL 0.2	100.0	No	No
Triallate (µg/L) - TW1	2017/01/11	<MDL 0.01	230.0	No	No
Triallate (µg/L) - TW2	2017/01/11	<MDL 0.01	230.0	No	No
Trichloroethylene (µg/L) - TW1	2017/01/11	<MDL 0.44	5.0	No	No
Trichloroethylene (µg/L) - TW2	2017/01/11	<MDL 0.44	5.0	No	No
2,4,6-Trichlorophenol (µg/L) - TW1	2017/01/11	<MDL 0.25	5.0	No	No
2,4,6-Trichlorophenol (µg/L) - TW2	2017/01/11	<MDL 0.25	5.0	No	No
2-methyl-4-chlorophenoxyacetic acid (MCPA) (µg/L) - TW1	2017/01/11	<MDL 0.12	100.0	No	No
2-methyl-4-chlorophenoxyacetic acid (MCPA) (µg/L) - TW2	2017/01/11	<MDL 0.12	100.0	No	No
Trifluralin (µg/L) - TW1	2017/01/11	<MDL 0.02	45.0	No	No
Trifluralin (µg/L) - TW2	2017/01/11	<MDL 0.02	45.0	No	No
Vinyl Chloride (µg/L) - TW1	2017/01/11	<MDL 0.17	1.0	No	No
Vinyl Chloride (µg/L) - TW2	2017/01/11	<MDL 0.17	1.0	No	No
Trihalomethane: Total Annual Average (µg/L) - DW	4 Quarters of 2019	10.25	100.00	No	No
Haloacetic Acid: Total Annual Average (µg/L) - DW	4 Quarters of 2019	5.3	80.00	No	No

Note: MDL = Minimum Detection Limit

Table 7: List of 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
Sodium: Na – TW1	10.4	mg/L	2017/01/11
Sodium: Na – TW2	14.1	mg/L	2017/01/11

Note: This table highlights the parameters with a "Yes" in the ½ MAC columns of Table 4 and Table 6.