



Part III Form 2
Section 11. ANNUAL REPORT

Drinking-Water System Number: 220000013
Drinking-Water System Name: ERIN DRINKING WATER SYSTEM
Drinking-Water System Owner: CORPORATION OF THE TOWN OF ERIN
Drinking-Water System Category: LARGE MUNICIPAL RESIDENTIAL
Period being reported: 01 JANUARY 2017 – 31 DECEMBER 2017

Complete if your Category is Large Municipal Residential or Small Municipal Residential

Does your Drinking-Water System serve more than 10,000 people? Yes [] No [X]

Is your annual report available to the public at no charge on a web site on the Internet? Yes [X] No []

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

TOWN OF ERIN
WATER SUPERINTENDENT'S OFFICE
5684 TRAFALGAR ROAD
HILLSBURGH, ONTARIO
N0B 1Z0

Complete for all other Categories.

Number of Designated Facilities served:

N/A

Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [] No []

Number of Interested Authorities you report to:

N/A

Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [] No []

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

Table with 2 columns: Drinking Water System Name, Drinking Water System Number. Row 1: N/A, 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 [] N/A [X]

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
[X] Public access/notice via Public Request



Describe your Drinking-Water System

The Erin Drinking Water System is a Class 3 Water Distribution and Supply Subsystem serving a population of approximately 3000 residential and commercial customers, located in the former Village of Erin. The distribution system has 26 km of water mains with 154 fire hydrants.

The water system is a ground water system supplied from two wells drilled into the fractured limestone bedrock, with a total rated capacity of 4,128 m³/day. The pressure in most of the Erin Drinking Water System is maintained by a 1,703 m³ water tower, however 65 residences in the Erin Heights Subdivision require a booster pump to maintain adequate pressure.

Well No. 7, located at 46 Shamrock Road (9555 Side Road 17), Erin, is a 260 mm diameter, 43m deep drilled ground water well, with casing to a depth of 19.1m. The well is located inside the pump house and is equipped with a submersible pump rated at 1,800 L/min. The neighboring land is used for both industrial and agricultural purposes. There is also undeveloped land in the vicinity of the Pumphouse.

Well No. 8, located on Lot 17, concession 8-9 (5555 Eighth Line), Erin, is a 200 mm diameter, 46 m deep drilled groundwater well, with double casing to depths of 6.7 m (outer casing) and 8.53 m (inner casing). The well is located approximately 4 m northwest of the pump house and is equipped with a submersible pump rated at 1,636 L/min. The neighboring land is used for both residential and agricultural purposes. A golf course runs adjacent to the Pumphouse along with undeveloped land.

List all water treatment chemicals used over this reporting period

Gaseous Chlorine

Were any significant expenses incurred to?

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

Please provide a brief description and a breakdown of monetary expenses incurred

Erin Water/Well House Maintenance and Materials/Supplies	\$ 26,183
Erin Water Distribution Maintenance and Materials/Supplies	\$ 36,643
Erin Water Tower Maintenance and Materials/Supplies	\$ 3,499
Hydro	\$ 81,972
Fire Hydrant Replacement	\$ 7,034
Meter Replacement Program (Erin and Hillsburgh)	\$ 1,329



Testing/Sampling	\$ 16,022.59
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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
<i>None to Report</i>					

Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03, during this reporting period.

	Number of Samples	Range of E.Coli Or Fecal Results (min #)-(max #)	Range of Total Coliform Results (min #)-(max #)	Number of HPC & Background Bacteria Samples	Range of HPC & Background Bacteria Results (min #)-(max #)
Raw	102	0 – 0	0 – 0	102	0 – 0 cfu/100mL
Treated	102	0 – 0	0 – 0	204	0 – 0 cfu/100mL
Distribution	204	0 – 0	0 – 0	408	0 – 7 cfu/100mL

Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03 during the period covered by this Annual Report.

	Number of Grab Samples	Range of Results (min #)-(max #)	Unit of Measure
Turbidity Well # 7 (E7)	12	0.10 – 0.25	NTU
Turbidity Well # 8 (E8)	12	0.07 – 0.27	NTU
Chlorine Well # 7 (Continuous)	8760	*0.00 – 1.61	mg/L
Chlorine Well # 8 (Continuous)	8760	*0.00 – 1.71	mg/L
Chlorine (Grab Samples)	365	0.00 – 1.40	mg/L
Fluoride (if the DWS provides fluoridation)	N/A	N/A	N/A

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

**This reading is not considered to be adverse. It is due to power failures, alarm testing and programming changes.*

Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order or other legal instrument. N/A

Date of legal instrument issued	Parameter	Date Sampled	Result	Unit of Measure
<i>None to report</i>				

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 #)	Unit of Measure	Number of Exceedances
Plumbing	N/A			
Distribution	3	ND	mg/L	0

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

Parameter	Sample Date	Result Value	Unit of Measure	MAC (Maximum Acceptable Concentration)
Well # 7 (E7)				
Antimony	23/06/2015	ND	mg/L	0.006
Arsenic	23/06/2015	ND	mg/L	0.025
Barium	23/06/2015	0.031	mg/L	1.000
Boron	23/06/2015	0.017	mg/L	5.000
Cadmium	23/06/2015	ND	mg/L	0.005
Chromium	23/06/2015	ND	mg/L	0.050
Lead	23/06/2015	ND	mg/L	0.010
Mercury	23/06/2015	ND	mg/L	0.001
Selenium	23/06/2015	ND	mg/L	0.010
Sodium	20/06/2013	6.2	mg/L	20.00
Uranium	23/06/2015	0.00042	mg/L	0.020
Fluoride	20/06/2013	0.2	mg/L	1.500
Nitrite	05/12/2017	ND	mg/L	1.000
Nitrate	05/12/2017	ND	mg/L	10.00

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

Parameter	Sample Date	Result Value	Unit of Measure	MAC (Maximum Acceptable Concentration)
Well # 8 (E8)				
Antimony	23/06/2015	ND	mg/L	0.006
Arsenic	23/06/2015	ND	mg/L	0.025
Barium	23/06/2015	0.045	mg/L	1.000
Boron	23/06/2015	0.011	mg/L	5.000
Cadmium	23/06/2015	ND	mg/L	0.005
Chromium	23/06/2015	ND	mg/L	0.050
Lead	23/06/2015	ND	mg/L	0.010
Mercury	23/06/2015	ND	mg/L	0.001
Selenium	23/06/2015	ND	mg/L	0.010
Sodium	20/06/2013	5.2	mg/L	20.00
Uranium	23/06/2015	0.00011	mg/L	0.020
Fluoride	20/06/2013	0.27	mg/L	1.500

Nitrite	05/12/2017	ND	mg/L	1.000
Nitrate	05/12/2017	0.1	mg/L	10.00

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

Parameter	Sample Date	Result Value	Unit of Measure	MAC (Maximum Acceptable Concentration)
<u>Well # 7 (E7)</u>				
Alachlor	2015/06/23	ND	ug/L	5
Aldicarb	2015/06/23	ND	ug/L	9
Aldrin + Dieldrin	2015/06/23	ND	ug/L	0.7
Atrazine + N-dealkylated metabolites	2015/06/23	ND	ug/L	5
Azinphos-methyl	2015/06/23	ND	ug/L	20
Bendiocarb	2015/06/23	ND	ug/L	40
Benzene	2015/06/23	ND	ug/L	5
Benzo(a)pyrene	2015/06/23	ND	ug/L	0.01
Bromoxynil	2015/06/23	ND	ug/L	5
Carbaryl	2015/06/23	ND	ug/L	90
Carbofuran	2015/06/23	ND	ug/L	90
Carbon Tetrachloride	2015/06/23	ND	ug/L	5
Chlordane (Total)	2015/06/23	ND	ug/L	7
Chlorpyrifos	2015/06/23	ND	ug/L	90
Cyanazine	2015/06/23	ND	ug/L	10
Diazinon	2015/06/23	ND	ug/L	20
Dicamba	2015/06/23	ND	ug/L	120
1,2-Dichlorobenzene	2015/06/23	ND	ug/L	200
1,4-Dichlorobenzene	2015/06/23	ND	ug/L	5
Dichlorodiphenyltrichloroethane (DDT) + metabolites	2015/06/23	ND	ug/L	30
1,2-Dichloroethane	2015/06/23	ND	ug/L	5
1,1-Dichloroethylene (vinylidene chloride)	2015/06/23	ND	ug/L	14
Dichloromethane	2015/06/23	ND	ug/L	50
2-4 Dichlorophenol	2015/06/23	ND	ug/L	900
2,4-Dichlorophenoxy acetic acid (2,4-D)	2015/06/23	ND	ug/L	100
Diclofop-methyl	2015/06/23	ND	ug/L	9
Dimethoate	2015/06/23	ND	ug/L	20
Dinoseb	2015/06/23	ND	ug/L	10
Diquat	2015/06/23	ND	ug/L	70
Diuron	2015/06/23	ND	ug/L	150
Glyphosate	2015/06/23	ND	ug/L	280
Heptachlor + Heptachlor Epoxide	2015/06/23	ND	ug/L	3
Lindane (Total)	2015/06/23	ND	ug/L	4
Malathion	2015/06/23	ND	ug/L	190
Methoxychlor	2015/06/23	ND	ug/L	900



Metolachlor	2015/06/23	ND	ug/L	50
Metribuzin	2015/06/23	ND	ug/L	80
Monochlorobenzene	2015/06/23	ND	ug/L	80
Paraquat	2015/06/23	ND	ug/L	10
Parathion	2015/06/23	ND	ug/L	50
Pentachlorophenol	2015/06/23	ND	ug/L	60
Phorate	2015/06/23	ND	ug/L	2
Picloram	2015/06/23	ND	ug/L	190
Polychlorinated Biphenyls(PCB)	2015/06/23	ND	ug/L	3
Prometryne	2015/06/23	ND	ug/L	1
Simazine	2015/06/23	ND	ug/L	10
THM (NOTE: show latest annual average)	2017/12/05	7.19	ug/L	100
Temephos	2015/06/23	ND	ug/L	280
Terbufos	2015/06/23	ND	ug/L	1
Tetrachloroethylene	2015/06/23	ND	ug/L	30
2,3,4,6-Tetrachlorophenol	2015/06/23	ND	ug/L	100
Triallate	2015/06/23	ND	ug/L	230
Trichloroethylene	2015/06/23	ND	ug/L	5
2,4,6-Trichlorophenol	2015/06/23	ND	ug/L	5
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	2015/06/23	ND	ug/L	280
Trifluralin	2015/06/23	ND	ug/L	45
Vinyl Chloride	2015/06/23	ND	ug/L	2

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

Parameter	Sample Date	Result Value	Unit of Measure	MAC (Maximum Acceptable Concentration)
<u>Well # 8 (E8)</u>				
Alachlor	2015/06/23	ND	ug/L	5
Aldicarb	2015/06/23	ND	ug/L	9
Aldrin + Dieldrin	2015/06/23	ND	ug/L	0.7
Atrazine + N-dealkylated metabolites	2015/06/23	ND	ug/L	5
Azinphos-methyl	2015/06/23	ND	ug/L	20
Bendiocarb	2015/06/23	ND	ug/L	40
Benzene	2015/06/23	ND	ug/L	5
Benzo(a)pyrene	2015/06/23	ND	ug/L	0.01
Bromoxynil	2015/06/23	ND	ug/L	5
Carbaryl	2015/06/23	ND	ug/L	90
Carbofuran	2015/06/23	ND	ug/L	90
Carbon Tetrachloride	2015/06/23	ND	ug/L	5
Chlordane (Total)	2015/06/23	ND	ug/L	7
Chlorpyrifos	2015/06/23	ND	ug/L	90
Cyanazine	2015/06/23	ND	ug/L	10



Diazinon	2015/06/23	ND	ug/L	20
Dicamba	2015/06/23	ND	ug/L	120
1,2-Dichlorobenzene	2015/06/23	ND	ug/L	200
1,4-Dichlorobenzene	2015/06/23	ND	ug/L	5
Dichlorodiphenyltrichloroethane (DDT) + metabolites	2015/06/23	ND	ug/L	30
1,2-Dichloroethane	2015/06/23	ND	ug/L	5
1,1-Dichloroethylene (vinylidene chloride)	2015/06/23	ND	ug/L	14
Dichloromethane	2015/06/23	ND	ug/L	50
2-4 Dichlorophenol	2015/06/23	ND	ug/L	900
2,4-Dichlorophenoxy acetic acid (2,4-D)	2015/06/23	ND	ug/L	100
Diclofop-methyl	2015/06/23	ND	ug/L	9
Dimethoate	2015/06/23	ND	ug/L	20
Dinoseb	2015/06/23	ND	ug/L	10
Diquat	2015/06/23	ND	ug/L	70
Diuron	2015/06/23	ND	ug/L	150
Glyphosate	2015/06/23	ND	ug/L	280
Heptachlor + Heptachlor Epoxide	2015/06/23	ND	ug/L	3
Lindane (Total)	2015/06/23	ND	ug/L	4
Malathion	2015/06/23	ND	ug/L	190
Methoxychlor	2015/06/23	ND	ug/L	900
Metolachlor	2015/06/23	ND	ug/L	50
Metribuzin	2015/06/23	ND	ug/L	80
Monochlorobenzene	2015/06/23	ND	ug/L	80
Paraquat	2015/06/23	ND	ug/L	10
Parathion	2015/06/23	ND	ug/L	50
Pentachlorophenol	2015/06/23	ND	ug/L	60
Phorate	2015/06/23	ND	ug/L	2
Picloram	2015/06/23	ND	ug/L	190
Polychlorinated Biphenyls(PCB)	2015/06/23	ND	ug/L	3
Prometryne	2015/06/23	ND	ug/L	1
Simazine	2015/06/23	ND	ug/L	10
THM (NOTE: show latest annual average)	2017/12/05	5.68	ug/L	100
Temephos	2015/06/23	ND	ug/L	280
Terbufos	2015/06/23	ND	ug/L	1
Tetrachloroethylene	2015/06/23	ND	ug/L	30
2,3,4,6-Tetrachlorophenol	2015/06/23	ND	ug/L	100
Triallate	2015/06/23	ND	ug/L	230
Trichloroethylene	2015/06/23	ND	ug/L	5
2,4,6-Trichlorophenol	2015/06/23	ND	ug/L	5
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	2015/06/23	ND	ug/L	280
Trifluralin	2015/06/23	ND	ug/L	45
Vinyl Chloride	2015/06/23	ND	ug/L	2



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
N/A			