



**OPTIONAL ANNUAL REPORT TEMPLATE**

<b>Drinking-Water System Number:</b>	<b>220 008 104</b>
<b>Drinking-Water System Name:</b>	Creighton Heights Water Supply System
<b>Drinking-Water System Owner:</b>	The Corporation of the Township of Hamilton
<b>Drinking-Water System Category:</b>	Large Municipal Residential-Water Treatment System Class 2
<b>Period being reported:</b>	January 1 <sup>st</sup> - December 31 <sup>st</sup> , 2015

<p><b><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></b></p> <p><b>Does your Drinking-Water System serve more than 10,000 people? Yes [ ] No [ X ]</b></p> <p><b>Is your annual report available to the public at no charge on a web site on the Internet? Yes [ X ] No [ ]</b></p> <p><b>Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</b></p> <div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <p>8285 Majestic Hills Drive Cobourg, ON. K9A 4J7</p> </div>	<p><b><u>Complete for all other Categories.</u></b></p> <p><b>Number of Designated Facilities served:</b></p> <div style="border: 1px solid black; width: 100px; height: 20px; margin: 5px 0;"></div> <p><b>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [ ] No [ ]</b></p> <p><b>Number of Interested Authorities you report to:</b> <div style="border: 1px solid black; width: 100px; height: 20px; display: inline-block;"></div></p> <p><b>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [ ] No [ ]</b></p>
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**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

**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**

Three drilled wells are located on-site in front of the treatment plant. The treatment plant building houses treatment and pumping equipment, chemical feed systems, a filtration system for iron, manganese and turbidity removal/ control, filter residuals management system, ultraviolet disinfection equipment, methane removal equipment, reservoir, high lift pumping, stand-by diesel generator, instrumentation and control equipment, SCADA system, and associated electrical controls and appurtances.

**List all water treatment chemicals used over this reporting period**

**12% sodium hypochlorite**  
**Potassium Permanganate**  
**Sodium Thiosulphate**

**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**

**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
04/22/2015	Other observations	Loss of pressure		Disinfection increased, flushed, sampled, BWA	Resolved 04/28/2015
04/29/2015	Microbiological	1 t coli	Count/100ml	resampled	Resolved 05/05/2015
05/26/2015	Other observations	Loss of pressure		Disinfection increased, flushed, sampled, BWA	Resolved 06/01/2015

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 Samples	Range of HPC Results (min #)-(max #)
Raw	156	0 - 0	0 - 5		
Treated	52	0 - 0	0 - 0	52	0 - 19
Distribution	141	0 - 0	0 - 1	61	0 - 279

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 #)
Turbidity	365	.07 - .69 NTU
Chlorine	8760	.46 – 2.94 mg/l
Fluoride (If the DWS provides fluoridation)		

*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, order or other legal instrument.

Date of legal instrument issued	Parameter	Date Sampled	Result	Unit of Measure
07/30/12 Licence #139-102	Suspended solids	03/10/15	2.33	mg/l
		06/16/15	2.66	
		09/22/15	2.33	
		12/03/15	2.0	
07/30/12 Licence #139-102	Chlorine residual	03/10/15	.23	mg/l
		06/16/15	.24	
		09/22/15	.26	
		12/03/15	.08	



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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	06/02/15	0.02<MDL	ug/l	no
Arsenic	“	0.2<MDL	“	“
Barium	“	17.7	“	“
Boron	“	72.9	“	“
Cadmium	“	0.003<MDL	“	“
Chromium	06/02/15	0.06	ug/l	no
*Lead			“	“
Mercury	06/02/15	.01<MDL	“	“
Selenium	“	1< MDL	“	“
Sodium	05/22/12	23.6	mg/l	
Uranium	06/02/15	0.002<MDL	ug/l	“
Fluoride	05/22/12	.30	mg/l	“
Nitrite	03/10/15	.014	mg/l	“
	06/02/15	.019		
	09/29/15	.021		
	12/14/15	.029		
Nitrate	03/10/15	.009	mg/l	“
	06/02/15	.011		
	09/29/15	.012		
	12/14/15	.026		

\*only for drinking water systems testing under Schedule 15.2; this includes large municipal non-residential systems, small municipal non-residential systems, non-municipal seasonal residential systems, large non-municipal non-residential systems, and small non-municipal non-residential systems

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

**Not applicable**

Lead sampled according to Schedule D of Municipal Drinking Water Licence 139-102

Location Type	Date	Sample Location	pH	Alkalinitymg/l as CaCO3	Lead mg/l
Distribution	04/09/15	Burwash	8.24	214	.05
	04/09/15	FireHall	7.98	211	.78
	04/09/15	Van Luven	8.39	210	.15
	04/09/15	Hwy 45	7.63	210	.05
Distribution	10/07/15	Burwash	8.0	202	
	10/07/15	FireHall	7.9	202	
	10/07/15	VanLuven	7.9	203	
	10/07/15	Hwy 45	7.8	202	

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

Parameter	Sample Date	Result Value	Units	Exceedance
Alachlor	06/02/15	.02<MDL	ug/l	no
Aldicarb	“	.02<MDL	“	“
Aldrin + Dieldrin	“	.01<MDL	“	“
Atrazine + N-dealkylated metabolites	“	.01<MDL	“	“
Azinphos-methyl	“	.02<MDL	“	“
Bendiocarb	“	.01<MDL	“	“
Benzene	“	.32<MDL	“	“
Benzo(a)pyrene	“	.0004<MDL	“	“
Bromoxynil	“	.33<MDL	“	“
Carbaryl	“	.01<MDL	“	“
Carbofuran	“	.01<MDL	“	“
Carbon Tetrachloride	“	.16<MDL	“	“
Chlordane (Total)	“	.01<MDL	“	“
Chlorpyrifos	“	.02<MDL	“	“
Cyanazine	“	.03<MDL	“	“
Desethyl atrazine	“	.01<MDL	“	“
Diazinon	“	.02<MDL	“	“
Dicamba	“	.20<MDL	“	“
1,2-Dichlorobenzene	“	.41<MDL	“	“
1,4-Dichlorobenzene	“	.36>MDL	“	“
Dichlorodiphenyltrichloroethane (DDT) + metabolites	“	.01<MDL	“	“
1,2-Dichloroethane	“	.35<MDL	“	“
1,1-Dichloroethylene (vinylidene chloride)	“	.33<MDL	“	“
Dichloromethane	“	.35<MDL	“	“
2,4 Dichlorophenol	“	.15<MDL	“	“
2,4-Dichlorophenoxy acetic acid (2,4-D)	“	.19<MDL	“	“
Diclofop-methyl	“	.40<MDL	“	“
Dimethoate	“	.03<MDL	“	“
Dinoseb	“	.36<MDL	“	“
Diquat	“	1<MDL	“	“
Diuron	“	.03<MDL	“	“
Glyphosate	“	1<MDL	“	“
Heptachlor + Heptachlor Epoxide	“	.01<MDL	“	“
Lindane (Total)	“	.01<MDL	“	“
Malathion	“	.02<MDL	“	“
Methoxychlor	“	.01<MDL	“	“
Metolachlor	“	.01<MDL	“	“
Metribuzin	“	.02<MDL	“	“
Monochlorobenzene	“	.3<MDL	“	“



Paraquat	“	1<MDL	“	“
Parathion	“	.02<MDL	“	“
Pentachlorophenol	“	.15<MDL	“	“
Phorate	“	.01<MDL	“	“
Picloram	“	1<MDL	“	“
Polychlorinated Biphenyls(PCB)	“	.04<MDL	“	“
Prometryne	“	.03<MDL	“	“
Simazine	“	.01<MDL	“	“
THM (NOTE: show latest annual average)	03/10/15 06/02/15 09/29/15 12/14/15	.98	“	“
Temephos	06/02/15	.01<MDL	“	“
Terbufos	“	.01<MDL	“	“
Tetrachloroethylene	“	.35<MDL	“	“
2,3,4,6-Tetrachlorophenol	“	.20<MDL	“	“
Triallate	“	.01<MDL	“	“
Trichloroethylene	“	.44<MDL	“	“
2,4,6-Trichlorophenol	“	.25<MDL	“	“
2,4,5-Trichlorophenoxy acetic acid (2,4,5-T)	“	.22<MDL	“	“
Trifluralin	“	.02<MDL	“	“
Vinyl Chloride	“	.17<MDL	“	“

**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