

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

## COE HILL PUBLIC SCHOOL ANNUAL REPORT

Drinking water system number:	<b>260013923</b>
Drinking water system name:	<b>Coe Hill Public School</b>
Drinking water system owner:	<b>Hastings and Prince Edward District School Board</b>
Drinking water system category:	<b>Small Non-Municipal Non-Residential</b>
Period Being Reported:	<b>April 1, 2020 - March 31, 2021</b>

Number of Designated Facilities Served:	1
Copies provided of annual report to all designated facilities served:	YES
Number of interested authorities you report to:	3
Copies provided of annual report to all interested authorities for each designated facility served:	YES
List all drinking water systems (if any) which receive all of their drinking water from your system:	Coe Hill Public School
Copies provided of annual report to all drinking water system owners to whom you provide all of its drinking water:	YES
Indicate method of notifying system users of annual report availability free of charge:	Website and Public Request

### Description of Drinking Water System:

The Coe Hill Public School drinking water system consists of one well, located south of the school along the western fenceline. A submersible pump supplies raw water to a mechanical room in the basement of the school. The water passes through a pressure tank initially and then passes a pre-chlorination injection point. The pre-chlorinated water passes through a 450-litre retention tank and then a flow meter prior to water conditioning. The water then passes through a water softener and an activated carbon filter. After carbon filtration the water passes through a 25-1 micron cartridge filter and then a 1-micron (absolute) cartridge filter. Primary disinfection is then provided by a Trojan UV max pro 20 followed by a solenoid valve that automatically shuts off water flow in the case of poor water quality or loss of power. The water is then passed by a post-chlorination injector prior to distribution to the school plumbing (supplemental chlorination). Chlorine residual is measured each day the school is open.

A service contract is in place with Culligan Water, Belleville, to maintain the treatment system.

To satisfy treatment requirements as described in Ontario Regulation 170/03, Ultraviolet disinfection equipment is used as primary disinfection. In addition to meeting the minimum treatment requirement we add chlorination as a means of secondary disinfection, though it is not required in this system. The free chlorine residual is sampled and recorded on a daily basis and the UV solenoid is tested for proper functioning on a weekly basis.

A professional engineer hired by the Board certified that the water supply and works do meet the minimum standards set out in the Ontario Regulation 170/03. They also certified that the minimum treatment laid out in Schedule 2 of the regulations is being complied with and that all equipment required by Schedule 6 and Schedule 9 of the regulations is provided.

### Water treatment chemicals used over this reporting period:

12% Sodium hypochlorite solution

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**Significant Expenses incurred included (0=N/A, X=APPLICABLE):**

X	Install Required Equipment
X	Repair Required Equipment
X	Replace Required Equipment

**Description and breakdown of monetary expenses incurred:** April 1, 2020 - March 31, 2021

**Water system upgrades and replacements:**

Replacement - Pressure tank and chlorine injector pump **\$7,599.63**

**Routine system maintenance (Including service contracts):**

Regular maintenance includes monthly checks of the water treatment system. Where components are replaced as regular maintenance (ie filters), that cost is noted under upgrades/replacements/part repair. The costs for regular maintenance on water treatment equipment was : **\$2,824.18**

**Water sampling and analysis:**

The cost for microbiological and chemical water sampling by Greer Galloway and analytical fees was: **\$2,793.66**

**Staff Training:**

Costs for required training of staff under Ontario Regulation 170/03 was: **\$84.62**

**Details on notices submitted in accordance with subsection 18(1) of the SDWA or section 16-4 of Schedule 16 of O.Reg. 170/03 and reported to SAC:**

April 1, 2020 - March 31, 2021

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective action date
No incidents.					

**Microbiological testing done under the Schedule 10, 11 or 12 of O.Reg 170/03:**

April 1, 2020 - March 31, 2021

	Number of samples	Range of E.Coli or Fecal Results (min-max)	Range of TC Results (min-max)
<b>Raw</b>	10	0-0	0-0
<b>Treated- Staff Kitchen</b>	17	0-0	0-0
<b>Distribution</b>	17	0-0	0-0

**Operational testing done under Schedule 7, 8 or 9 of O.Reg. 170/03:**

April 1, 2020 - March 31, 2021

	Number of Grab Samples	Range of Results (min-max)
<b>Turbidity</b>	17	0.10 - 0.87
<b>Chlorine</b>	180	0.08 - 0.44

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Inorganic testing done during this reporting period or most recent sample results:					
Parameter	Sample Date	Result Value	Unit of Measure	Exceedance	
Antimony	21-May-19	<0.0001	mg/L	No	
Arsenic	21-May-19	0.0001	mg/L	No	
Barium	21-May-19	<0.001	mg/L	No	
Boron	21-May-19	0.029	mg/L	No	
Cadmium	21-May-19	<0.000015	mg/L	No	
Chromium	21-May-19	<0.002	mg/L	No	
*Lead	STANDING	6-Oct-20	0.00369	mg/L	No
	FLUSHED	6-Oct-20	0.001	mg/L	No
Mercury	21-May-19	<0.00002	mg/L	No	
Selenium	21-May-19	<0.001	mg/L	No	
Sodium	21-May-19	57.1	mg/L	Yes	
Uranium	21-May-19	0.00011	mg/L	No	
Fluoride	21-May-19	<0.1	mg/L	No	
Nitrite - 4th quarter result	Mar-21	0.1	mg/L	No	
Nitrate - 4th quarter result	Mar-21	3.3	mg/L	No	

Organic testing done during this reporting period or most recent sample results:				
Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	21-May-19	<0.0003	mg/L	No
Atrazine + N-dealkylated metabolites	21-May-19	<0.0005	mg/L	No
Azinphos-methyl	21-May-19	<0.001	mg/L	No
Benzene	21-May-19	<0.0005	mg/L	No
Benzo(a)pyrene	21-May-19	<0.000005	mg/L	No
Bromoxynil	21-May-19	<0.0005	mg/L	No
Carbaryl	21-May-19	<0.003	mg/L	No
Carbofuran	21-May-19	<0.001	mg/L	No
Carbon Tetrachloride	21-May-19	<0.0002	mg/L	No
Chlorpyrifos	21-May-19	<0.0005	mg/L	No
Diazinon	21-May-19	<0.001	mg/L	No
Dicamba	21-May-19	<0.01	mg/L	No
1,2-Dichlorobenzene	21-May-19	<0.0005	mg/L	No
1,4-Dichlorobenzene	21-May-19	<0.0005	mg/L	No
1,2-Dichloroethane	21-May-19	<0.0005	mg/L	No
1,1-Dichloroethene (vinylidene chloride)	21-May-19	<0.0005	mg/L	No
Dichlormethane	21-May-19	<0.005	mg/L	No
2,4-Dichlorophenol	21-May-19	<0.0001	mg/L	No
2,4-Dichlorophenoxyacetic acid (2,4-D)	21-May-19	<0.010	mg/L	No
Diclofop-methyl	21-May-19	<0.0009	mg/L	No
Dimethoate	21-May-19	<0.001	mg/L	No
Diquat	21-May-19	<0.005	mg/L	No
Diuron	21-May-19	<0.005	mg/L	No
Glyphosate	21-May-19	<0.025	mg/L	No
MCPA 2-Methyl-4-chlorophenoxyacetic Acid	21-May-19	<0.010	mg/L	No

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Malathion	21-May-19	<0.005	mg/L	No
Metolachlor	21-May-19	<0.003	mg/L	No
Metribuzin	21-May-19	<0.003	mg/L	No
Monochlorobenzene	21-May-19	<0.0005	mg/L	No
Paraquat	21-May-19	<0.001	mg/L	No
Pentachlorophenol	21-May-19	<0.0001	mg/L	No
Phorate	21-May-19	<0.0003	mg/L	No
Picloram	21-May-19	<0.020	mg/L	No
PolyChlorinated Biphenyls (PCB)	21-May-19	<0.00005	mg/L	No
Prometryne	21-May-19	<0.0001	mg/L	No
Simazine	21-May-19	<0.0005	mg/L	No
THM	1-Sep-20	0.01	mg/L	No
Terbufos	21-May-19	<0.0003	mg/L	No
Tetrachloroethylene	21-May-19	<0.0005	mg/L	No
2,3,4,6-Tetrachlorophenol	21-May-19	<0.0001	mg/L	No
Triallate	21-May-19	<0.010	mg/L	No
Trichloroethylene	21-May-19	<0.0005	mg/L	No
2,4,6-Trichlorophenol	21-May-19	<0.0001	mg/L	No
Trifluarlin	21-May-19	<0.0005	mg/L	No
Vinyl Chloride	21-May-19	<0.0002	mg/L	No

**Inorganic or Organic Parameter(s) that exceed half the standard prescribed in Schedule 2 of ODWQS:**

Parameter	Result Value	Unit of Measure	Date of Sample	Notes:
Sodium	57.1	mg/L	21-May-19	Bottled water is made available.