

Drinking Water Systems Regulation O.Reg. 170/03

SOPHIASBURGH PUBLIC SCHOOL ANNUAL REPORT

Drinking water system number:	260014040
Drinking water system name:	Sophiasburgh Central School
Drinking water system owner:	Hastings and Prince Edward District School Board
Drinking water system category:	Small Non-Municipal Non-Residential
Period Being Reported:	April 1, 2022 - March 31, 2023

Number of Designated Facilities Served:	2
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:	Sophiasburgh Central School & The HUB childcare
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 Sophiasburgh Central Public School drinking water system consists of one in ground storage tank equipped with a submersible pump that supplies raw water to the water treatment system. Water from a facility meeting the requirement of O. Reg. 170/03 is hauled to the school to serve as the drinking water source. In an effort to reduce the use of purchased water, the toilets, urinals and two outside maintenance taps were reconnected to the original well water system in March 2003. This was done through a separate plumbing system. All other fixtures remain connected only to the water storage tanks. There is no opportunity for cross connections between the two systems as verified by a professional engineer in February 2022. The outside taps to the north and south of the school are for grounds maintenance purposes. These taps have had the valve handles removed and been posted with signs warning of non-potable water. In addition to this, to ensure that no one can access the non-potable water, locks have been installed on the inside shut-off valves for these taps which are located in cupboards inside the school. A new Engineers report was developed in 2021; the treatment system consists of two cartridge style filters, a UV pro 20 disinfection system and a post chlorination to provide secondary disinfection residual. Chlorine residual is measured each day the school is open.

A service contract is in place with MacLellan Water Technologies to maintain the treatment systems.

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.

Drinking Water Systems Regulation O.Reg. 170/03

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

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

- | | |
|---|----------------------------|
| 0 | Install Required Equipment |
| X | Repair Required Equipment |
| X | Replace Required Equipment |

Description and breakdown of monetary expenses incurred: April 1, 2022 - March 31, 2023

Water system upgrades and replacements:

No major upgrades or replacements of equipment were completed during this year.

\$0.00

Routine system maintenance (Including service contracts):

Regular maintenance includes monthly checks of the water treatment system by a service contractor and the minor repair/replacement of necessary parts/equipment(including cistern maintenance). The costs, tax excluded, for regular maintenance on water treatment equipment was :

\$4,330.22

Water sampling and analysis:

The cost for microbiological and chemical water sampling by Greer Galloway and analytical fees was:

\$4,911.39

Staff Training:

Costs for required training of staff under Ontario Regulation 170/03 was:

\$304.62

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, 2022 - March 31, 2023

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, 2022 - March 31, 2023

	Number of samples	Range of E.Coli or Fecal Results (min-max)	Range of TC Results (min-max)
Raw	13	0-0	0-0
Treated- Staff Kitchen	13	0-0	0-0
Distribution	13	0-0	0-0

Drinking Water Systems Regulation O.Reg. 170/03

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

April 1, 2022 - March 31, 2023

	Number of Grab Samples	Range of Results (min-max)
Turbidity	22	0.14-0.26
Chlorine	224	0.32-1.96

Inorganic testing done during this reporting period or most recent sample results:

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	N/A	N/A	mg/L	N/A
Arsenic	N/A	N/A	mg/L	N/A
Barium	N/A	N/A	mg/L	N/A
Boron	N/A	N/A	mg/L	N/A
Cadmium	N/A	N/A	mg/L	N/A
Chromium	N/A	N/A	mg/L	N/A
Fluoride	N/A	N/A	mg/L	N/A
Lead - STANDING	17-Jun-22	0.00383	mg/L	No
Lead - FLUSHED		0.00052	mg/L	No
Mercury	N/A	N/A	mg/L	N/A
Nitrite	14-Mar-23	0.05	mg/L	No
Nitrate		0.43	mg/L	No
Selenium	N/A	N/A	mg/L	N/A
Sodium	N/A	N/A	mg/L	N/A
Uranium	N/A	N/A	mg/L	N/A

Organic testing done during this reporting period or most recent sample results:

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	N/A	N/A	mg/L	N/A
Atrazine + N-dealkylated metabolites	N/A	N/A	mg/L	N/A
Azinphos-methyl	N/A	N/A	mg/L	N/A
Benzene	N/A	N/A	mg/L	N/A
Benzo(a)pyrene	N/A	N/A	mg/L	N/A
Bromoxynil	N/A	N/A	mg/L	N/A
Carbaryl	N/A	N/A	mg/L	N/A
Carbofuran	N/A	N/A	mg/L	N/A
Carbon Tetrachloride	N/A	N/A	mg/L	N/A
Chlorpyrifos	N/A	N/A	mg/L	N/A
Diazinon	N/A	N/A	mg/L	N/A
Dicamba	N/A	N/A	mg/L	N/A
1,2-Dichlorobenzene	N/A	N/A	mg/L	N/A
1,4-Dichlorobenzene	N/A	N/A	mg/L	N/A
1,2-Dichloroethane	N/A	N/A	mg/L	N/A
1,1-Dichloroethylene (vinylidene chloride)	N/A	N/A	mg/L	N/A

Drinking Water Systems Regulation O.Reg. 170/03

Dichlormethane	N/A	N/A	mg/L	N/A
2,4-Dichlorophenol	N/A	N/A	mg/L	N/A
2,4-Dichlorophenoxyacetic acid (2,4-D)	N/A	N/A	mg/L	N/A
Diclofop-methyl	N/A	N/A	mg/L	N/A
Dimethoate	N/A	N/A	mg/L	N/A
Diquat	N/A	N/A	mg/L	N/A
Diuron	N/A	N/A	mg/L	N/A
Glyphosate	N/A	N/A	mg/L	N/A
Malathion	N/A	N/A	mg/L	N/A
2-Methyl-4-chlorophenoxyacetic acid (MCPA)	N/A	N/A	mg/L	N/A
Metolachlor	N/A	N/A	mg/L	N/A
Metribuzin	N/A	N/A	mg/L	N/A
Monochlorobenzene	N/A	N/A	mg/L	N/A
Paraquat	N/A	N/A	mg/L	N/A
Pentachlorophenol	N/A	N/A	mg/L	N/A
Phorate	N/A	N/A	mg/L	N/A
Picloram	N/A	N/A	mg/L	N/A
PolyChlorinated Biphenyls (PCB)	N/A	N/A	mg/L	N/A
Prometryne	N/A	N/A	mg/L	N/A
Simazine	N/A	N/A	mg/L	N/A
Terbufos	N/A	N/A	mg/L	N/A
Tetrachloroethylene	N/A	N/A	mg/L	N/A
2,3,4,6-Tetrachlorophenol	N/A	N/A	mg/L	N/A
Triallate	N/A	N/A	mg/L	N/A
Trichloroethylene	N/A	N/A	mg/L	N/A
2,4,6-Trichlorophenol	N/A	N/A	mg/L	N/A
Trifluarlin	N/A	N/A	mg/L	N/A
Trihalomethanes (THM)	31-Aug-22	96µg/L	Voluntary Sampling	
Vinyl Chloride	N/A	N/A	mg/L	N/A