

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

MADOC TOWNSHIP PUBLIC SCHOOL ANNUAL REPORT

Drinking water system number:	260014001
Drinking water system name:	Madoc Township Public 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, 2020 - March 31, 2021

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:	Madoc Township 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 Madoc Township Public School drinking water system consists of one well, located at the entrance of the school, equipped with a submersible pump that supplies raw water to a mechanical room in the school. Chlorine is added through a feed pump, and then passes through a small cartridge style sediment filter, and then through an ultraviolet disinfection system. The system is equipped with a solenoid valve that shuts down water in instances of poor water quality or loss of power; the solenoid is tested weekly. The pressure system and other miscellaneous pipes and fittings are located in the same room. Chlorine residual (supplemental chlorination) 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. The engineer 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.

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

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
0	Replace Required Equipment

Description and breakdown of monetary expenses incurred:

April 1, 2020 - March 31, 2021

Water system upgrades and replacements:

No upgrades or replacements of equipment were completed during this year; replacement parts only; The well was cleaned in November 2020.

\$2,647.56

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
3-Nov-20	water system malfunction			Repair of system, Bacteriological testing	16-Nov-20

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)
Raw	10	0-0	0-10
Treated- Staff Kitchen	17	0-0	0-0
Distribution	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)
Turbidity	17	0.07 -0.71
Chlorine	180	0.11 - 1.78

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

Inorganic testing done during this reporting period or most recent sample results:					
Parameter		Sample Date	Result Value	Unit of Measure	Exceedance
Antimony		24-May-16	<0.0001	mg/L	No
Arsenic		24-May-16	0.0002	mg/L	No
Barium		24-May-16	0.172	mg/L	No
Boron		24-May-16	0.01	mg/L	No
Cadmium		24-May-16	<0.00002	mg/L	No
Chromium		24-May-16	<0.002	mg/L	No
*Lead	STANDING	29-Oct-20	0.00688	mg/L	No
	FLUSHED	29-Oct-20	0.00283	mg/L	No
Mercury		24-May-16	<0.00002	mg/L	No
Selenium		24-May-16	<0.001	mg/L	No
Sodium		24-May-16	91.2	mg/L	Yes
Uranium		24-May-16	0.0005	mg/L	No
Fluoride		24-May-16	0.1	mg/L	No
Nitrite - 4th quarter result		Mar-21	0.2	mg/L	No
Nitrate - 4th quarter result		Mar-21	2.3	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	24-May-16	<0.0003	mg/L	No
Atrazine + N-dealkylated metabolites	24-May-16	<0.0005	mg/L	No
Azinphos-methyl	24-May-16	<0.001	mg/L	No
Benzene	24-May-16	<0.0005	mg/L	No
Benzo(a)pyrene	24-May-16	<0.000005	mg/L	No
Bromoxynil	24-May-16	<0.0003	mg/L	No
Carbaryl	24-May-16	<0.003	mg/L	No
Carbofuran	24-May-16	<0.001	mg/L	No
Carbon Tetrachloride	24-May-16	<0.0002	mg/L	No
Chlorpyrifos	24-May-16	<0.0005	mg/L	No
Diazinon	24-May-16	<0.001	mg/L	No
Dicamba	24-May-16	<0.005	mg/L	No
1,2-Dichlorobenzene	24-May-16	<0.0001	mg/L	No
1,4-Dichlorobenzene	24-May-16	<0.0001	mg/L	No
1,2-Dichloroethane	24-May-16	<0.0001	mg/L	No
1,1-Dichloroethene (vinylidene chloride)	24-May-16	<0.0001	mg/L	No
Dichlormethane	24-May-16	<0.0003	mg/L	No
2,4-Dichlorophenol	24-May-16	<0.0001	mg/L	No
2,4-Dichlorophenoxyacetic acid (2,4-D)	24-May-16	<0.005	mg/L	No
Diclofop-methyl	24-May-16	<0.0005	mg/L	No
Dimethoate	24-May-16	<0.001	mg/L	No
Diquat	24-May-16	<0.005	mg/L	No
Diuron	24-May-16	<0.005	mg/L	No

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

Glyphosate	24-May-16	<0.025	mg/L	No
MCPA 2-Methyl-4-chlorophenoxyacetic Acid	24-May-16	<0.00012	mg/L	No
Malathion	24-May-16	<0.005	mg/L	No
Metolachlor	24-May-16	<0.003	mg/L	No
Metribuzin	24-May-16	<0.003	mg/L	No
Monochlorobenzene	24-May-16	<0.0002	mg/L	No
Paraquat	24-May-16	<0.001	mg/L	No
Pentachlorophenol	24-May-16	<0.0001	mg/L	No
Phorate	24-May-16	<0.0003	mg/L	No
Picloram	24-May-16	<0.005	mg/L	No
PolyChlorinated Biphenyls (PCB)	24-May-16	<0.00005	mg/L	No
Prometryne	24-May-16	<0.0001	mg/L	No
Simazine	24-May-16	<0.0005	mg/L	No
THM	1-Sep-20	<0.006	mg/L	No
Terbufos	24-May-16	<0.0003	mg/L	No
Tetrachloroethylene	24-May-16	<0.0002	mg/L	No
2,3,4,6-Tetrachlorophenol	24-May-16	<0.0001	mg/L	No
Triallate	24-May-16	<0.01	mg/L	No
Trichloroethylene	24-May-16	<0.0001	mg/L	No
2,4,6-Trichlorophenol	24-May-16	<0.0001	mg/L	No
Trifluarlin	24-May-16	<0.0005	mg/L	No
Vinyl Chloride	24-May-16	<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:
Lead	0.00688	mg/L	29-Oct-20	over 1/2 the MAC
Sodium	91.2	mg/L	24-May-16	Bottled water is made available.