

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

## MASSASSAUGA-REDNERSVILLE PUBLIC SCHOOL ANNUAL REPORT

Drinking water system number:	<b>260014014</b>
Drinking water system name:	<b>Massassauga_Rednersville 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:	3
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:	Massassauga_Rednersville Public School and YMCA Kids Club-Mass-Red Site (DWIS#500104586) and The Hub Child & Family Centre (500141220)
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 Massassauga-Rednersville Public School drinking water system consists of one in ground storage tank equipped with a submersible pump (replaced Fall 2019) that supplies hauled 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. The treated water system begins with a cartridge style sediment filter, passes through a UV Pro 20 disinfection system and then is injected with chlorine (supplemental chlorination) prior to being distributed to plumbing. 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. 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.

## **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. 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):**

- Install Required Equipment
- Repair Required Equipment
- 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

**\$920.10**

**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>Cistern</b>	10	0-0	0-0
<b>Treated- Staff Kitchen</b>	10	0-0	0-0
<b>Distribution</b>	10	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>	10	0.15 - 0.82
<b>Chlorine</b>	180	0.75 - >2.20

## 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	N/A		mg/L	N/A	
Arsenic	N/A		mg/L	N/A	
Barium	N/A		mg/L	N/A	
Boron	N/A		mg/L	N/A	
Cadmium	N/A		mg/L	N/A	
Chromium	N/A		mg/L	N/A	
*Lead	STANDING	25-Sep-20	0.0016	mg/L	No
	FLUSHED	25-Sep-20	0.00081	mg/L	No
Mercury	N/A		mg/L	N/A	
Selenium	N/A		mg/L	N/A	
Sodium	N/A		mg/L	N/A	
Uranium	N/A		mg/L	N/A	
Fluoride	N/A		mg/L	N/A	
Nitrite - 4th quarter result	Mar-21	0.1	mg/L	No	
Nitrate - 4th quarter result	Mar-21	0.3	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	N/A		mg/L	N/A	
Atrazine + N-dealkylated metabolites	N/A		mg/L	N/A	
Azinphos-methyl	N/A		mg/L	N/A	
Benzene	N/A		mg/L	N/A	
Benzo(a)pyrene	N/A		mg/L	N/A	
Bromoxynil	N/A		mg/L	N/A	
Carbaryl	N/A		mg/L	N/A	
Carbofuran	N/A		mg/L	N/A	
Carbon Tetrachloride	N/A		mg/L	N/A	
Chlorpyrifos	N/A		mg/L	N/A	
Diazinon	N/A		mg/L	N/A	
Dicamba	N/A		mg/L	N/A	
1,2-Dichlorobenzene	N/A		mg/L	N/A	
1,4-Dichlorobenzene	N/A		mg/L	N/A	
1,2-Dichloroethane	N/A		mg/L	N/A	
1,1-Dichloroethene (vinylidene chloride)	N/A		mg/L	N/A	
Dichlormethane	N/A		mg/L	N/A	
2,4-Dichlorophenol	N/A		mg/L	N/A	
2,4-Dichlorophenoxyacetic acid (2,4-D)	N/A		mg/L	N/A	
Diclofop-methyl	N/A		mg/L	N/A	
Dimethoate	N/A		mg/L	N/A	
Diquat	N/A		mg/L	N/A	
Diuron	N/A		mg/L	N/A	

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

Glyphosate	N/A		mg/L	N/A
Malathion	N/A		mg/L	N/A
Metolachlor	N/A		mg/L	N/A
Metribuzin	N/A		mg/L	N/A
Monochlorobenzene	N/A		mg/L	N/A
Paraquat	N/A		mg/L	N/A
Pentachlorophenol	N/A		mg/L	N/A
Phorate	N/A		mg/L	N/A
Picloram	N/A		mg/L	N/A
PolyChlorinated Biphenyls (PCB)	N/A		mg/L	N/A
Prometryne	N/A		mg/L	N/A
Simazine	N/A		mg/L	N/A
THM	2-Oct-20	0.069	mg/L	No
Terbufos	N/A		mg/L	N/A
Tetrachloroethylene	N/A		mg/L	N/A
2,3,4,6-Tetrachlorophenol	N/A		mg/L	N/A
Triallate	N/A		mg/L	N/A
Trichloroethylene	N/A		mg/L	N/A
2,4,6-Trichlorophenol	N/A		mg/L	N/A
Trifluarlin	N/A		mg/L	N/A
Vinyl Chloride	N/A		mg/L	N/A

<b>Inorganic or Organic Parameter(s) that exceed half the standard prescribed in Schedule 2 of ODWQS:</b>				
<b>Parameter</b>	<b>Result Value</b>	<b>Unit of Measure</b>	<b>Date of Sample</b>	<b>Notes:</b>
THM - Voluntary Sampling	0.069	mg/L	2-Oct-20	Voluntary Sampling