

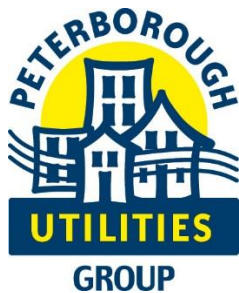
PUG SERVICES CORP.

# ANNUAL REPORT

FOR

## MILLBROOK DRINKING WATER SYSTEM

**PERIOD: January 1, 2019 – December 31, 2019**



MECP Waterworks # 220000781  
February 12, 2020

<b>Drinking-Water System Number:</b>	220000781
<b>Drinking-Water System Name:</b>	Millbrook Drinking Water System
<b>Drinking-Water System Owner:</b>	Township of Cavan Monaghan
<b>Drinking-Water System Category:</b>	Water Distribution and Supply Class II
<b>Period being reported:</b>	January 1, 2019 to December 31, 2019

<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;"> <p>Township of Cavan Monaghan 988 County Road 10 Millbrook, ON L0A 1G0 www.cavanmonaghan.net</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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**Note: For the following tables below, additional rows or columns may be added or an appendix may be attached to the report**

**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 - Social Media (Twitter Facebook or Instagram)**

**Describe your Drinking-Water System**

The Millbrook Drinking Water System and distribution system is operated by Peterborough Utilities Services Inc. under contract with the Township of Cavan Monaghan.

The Millbrook Drinking Water System municipal water system consists of the following

- Three non-GUDI groundwater wells
- Sodium hypochlorite disinfection feed system with metering pumps
- 71 m of 900 mm oversized contact pipe
- Continuous on-line chlorine analyzers
- Continuous on-line flow meters
- Standpipe with 1,527 m<sup>3</sup> of storage

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

Sodium Hypochlorite (Chlorine)

**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**

None

**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
None					

**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 RW1	53	0 - 0	0 - 0	52	0 - 31
Raw RW2	53	0 - 0	0 - 0	52	0 - 31
Raw RW3	53	0 - 0	0 - 0	52	0 - 7
Treated	58	0 - 0	0 - 0	57	0 - 3
Distribution	210	0 - 0	0 - 0	208	0 - 18

**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 #)	Unit of Measure
<b>Turbidity</b>			
Well 1	52	0.200 – 0.940	NTU
Well 2	52	0.070 – 0.760	
Well 3	52	0.180 – 0.960	
<b>Chlorine – Free Treated Water</b>	8760	1.36 – 2.01	mg/L
<b>Chlorine – Free Distribution</b>	212	1.28 – 1.88	mg/L
<b>Fluoride (If the DWS provides fluoridation)</b>			

**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
N/A				

**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	Jan 21	<0.02	µg/L	No
Arsenic	Jan 21	0.6	µg/L	No
Barium	Jan 21	119	µg/L	No
Boron	Jan 21	16	µg/L	No
Cadmium	Jan 21	0.003<MDL	µg/L	No
Chromium	Jan 21	0.15	µg/L	No
Mercury	Jan 21	0.01 <MDL	µg/L	No
Selenium	Jan 21	0.05	µg/L	No
Uranium	Jan 21	0.349	µg/L	No

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Fluoride	June 17	0.1	mg/L	No
Nitrite	Jan 16	0.05	mg/L	No
	April 17	0.05		
	July 11	0.05		
	October 17	0.05		
Nitrate	Jan 16	0.41	mg/L	No
	April 17	1.10		
	July 11	0.40		
	October 17	1.20		

### Summary of lead testing under Schedule 15.1 during this reporting period

The Millbrook Municipal Water System was granted relief from regulatory lead sampling in Schedule 15.1 of O. Reg. 170/03, as described in Schedule D of the Municipal Drinking Water Licence #136-101, Issue #5, dated January 5, 2017.

Location Type	Number of Samples	Range of Lead Results (min#) – (max #)	Unit of Measure	Number of Exceedances
Plumbing	0	0	µg/L	0
Distribution	4	All results <0.0005	µg/L	0

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	Jan 21	0.02<MDL	µg/L	No
Atrazine + N-dealkylated metabolites	Jan 21	0.01<MDL	µg/L	No
Atrazine	Jan 21	0.01	µg/L	No
Azinphos-methyl	Jan 21	0.05<MDL	µg/L	No
Benzene	Jan 21	0.32<MDL	µg/L	No
Benzo(a)pyrene	Jan 21	0.004<MDL	µg/L	No
Bromoxynil	Jan 21	0.33<MDL	µg/L	No
Carbaryl	Jan 21	0.05<MDL	µg/L	No
Carbofuran	Jan 21	0.01<MDL	µg/L	No
Carbon Tetrachloride	Jan 21	0.16<MDL	µg/L	No
Chlorpyrifos	Jan 21	0.02<MDL	µg/L	No
Desethyl Atrazine	Jan 21	<0.01	µg/L	No
Diazinon	Jan 21	0.02<MDL	µg/L	No
Dicamba	Jan 21	0.20<MDL	µg/L	No
1,2-Dichlorobenzene	Jan 21	0.41<MDL	µg/L	No
1,4-Dichlorobenzene	Jan 21	0.36<MDL	µg/L	No
1,2-Dichloroethane	Jan 21	0.35<MDL	µg/L	No
1,1-Dichloroethylene (vinylidene chloride)	Jan 21	0.17	µg/L	No
Dichloromethane	Jan 21	0.35<MDL	µg/L	No
2-4 Dichlorophenol	Jan 21	0.15<MDL	µg/L	No

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
2,4-Dichlorophenoxy acetic acid (2,4-D)	Jan 21	0.19<MDL	µg/L	No
Diclofop-methyl	Jan 21	0.40<MDL	µg/L	No
Dimethoate	Jan 21	0.06	µg/L	No
Diquat	Jan 21	1<MDL	µg/L	No
Diuron	Jan 21	0.03<MDL	µg/L	No
Glyphosate	Jan 21	1<MDL	µg/L	No
Malathion	Jan 21	0.02<MDL	µg/L	No
Metolachlor	Jan 21	0.01<MDL	µg/L	No
Metribuzin	Jan 21	0.02<MDL	µg/L	No
Monochlorobenzene	Jan 21	0.30<MDL	µg/L	No
Paraquat	Jan 21	1<MDL	µg/L	No
Pentachlorophenol	Jan 21	0.15<MDL	µg/L	No
Phorate	Jan 21	0.01<MDL		
Picloram	Jan 21	1<MDL	µg/L	No
Polychlorinated Biphenyls(PCB)	Jan 21	0.04<MDL	µg/L	No
Prometryne	Jan 21	0.03<MDL	µg/L	No
Simazine	Jan 21	0.01<MDL	µg/L	No
THM (NOTE: show latest annual average)	Average	5.13	µg/L	No
Terbufos	Jan 21	0.01<MDL	µg/L	No
Tetrachloroethylene	Jan 21	0.35<MDL	µg/L	No
2,3,4,6-Tetrachlorophenol	Jan 21	0.20<MDL	µg/L	No
Triallate	Jan 21	0.01<MDL	µg/L	No
Trichloroethylene	Jan 21	0.44<MDL	µg/L	No
2,4,6-Trichlorophenol	Jan 21	0.25<MDL	µg/L	No
Trifluralin	Jan 21	0.02<MDL	µg/L	No
Vinyl Chloride	Jan 21	0.17<MDL	µg/L	No

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
None			