

ANNUAL REPORT

FOR

MILLBROOK DRINKING WATER SYSTEM

PERIOD: January 1, 2022 – December 31, 2022

TOWNSHIP OF
CAVAN MONAGHAN



Have it all. Right here.


peterborough

MECP Waterworks # 220000781
February 22, 2022

Drinking-Water System Number:	220000781
Drinking-Water System Name:	Millbrook Drinking Water System
Drinking-Water System Owner:	Township of Cavan Monaghan
Drinking-Water System Category:	Water Distribution and Supply Class II
Period being reported:	January 1, 2022 to December 31, 2022

<p><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></p> <p>Does your Drinking-Water System serve more than 10,000 people? Yes [] No [X]</p> <p>Is your annual report available to the public at no charge on a web site on the Internet? Yes [X] No []</p> <p>Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</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><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served:</p> <div style="border: 1px solid black; padding: 2px; width: fit-content;">N/A</div> <p>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [] No []</p> <p>Number of Interested Authorities you report to:</p> <div style="border: 1px solid black; padding: 2px; width: fit-content;">N/A</div> <p>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [] No []</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
N/A	

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 [] N/A

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 The City of Peterborough, Environmental Services Division, 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 (Due to recurring turbidity issues Well 3 was taken out of service in August 2022 with plans to rehabilitate in 2023.)
- 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 2,600 m³ 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

Replaced the sodium hypochlorite storage tank, online chlorine and online turbidity analyzers.

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	52	0 – 0	0 – 0	52	0 – 7
Raw RW2	52	0 – 0	0 - 0	52	0 – 2
Raw RW3	33	0 – 0	0 - 0	33	0 – 9
Treated	53	0 – 0	0 - 0	53	0 – 1
Distribution	208	0 – 0	0 - 0	208	0 – 11

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
Turbidity			
Well 1	52	0.12 – 0.82	NTU
Well 2	52	0.10 – 0.83	
Well 3	33	0.13 – 0.78	
Chlorine - Free Treated Water	8760	1.45 - 1.98	mg/L
Chlorine – Free Distribution	209	1.21 – 1.97	mg/L
Fluoride (If the DWS provides fluoridation)			

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	nit of Measure	Exceedance
Antimony	Jan 24	0.6<MDL	µg/L	No
Arsenic	Jan 24	0.3	µg/L	No
Barium	Jan 24	138	µg/L	No
Boron	Jan 24	18	µg/L	No
Cadmium	Jan 24	0.005	µg/L	No
Chromium	Jan 24	0.11	µg/L	No
Mercury	Jan 24	0.01<MDL	µg/L	No
Selenium	Jan 24	0.69	µg/L	No
Uranium	Jan 24	1.03	µg/L	No

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Fluoride	May 24	0.1<MDL	mg/L	No
Nitrite	Jan 13	0.05<MDL	mg/L	No
	April 14	0.05<MDL		
	July 12	0.05<MDL		
	October 06	0.05<MDL		
Nitrate	Jan 13	0.77	mg/L	No
	April 14	1.27		
	July 12	1.52		
	October 06	0.89		

Summary of lead testing under Schedule 15.1 during this reporting period

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 - <0.5	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 24	0.02<MDL	µg/L	No
Atrazine + N-dealkylated metabolites	Jan 24	0.01<MDL	µg/L	No
Atrazine	Jan 24	0.01<MDL	µg/L	No
Azinphos-methyl	Jan 24	0.05<MDL	µg/L	No
Benzene	Jan 24	0.32<MDL	µg/L	No
Benzo(a)pyrene	Jan 24	0.004<MDL	µg/L	No
Bromoxynil	Jan 24	0.33<MDL	µg/L	No
Carbaryl	Jan 24	0.05<MDL	µg/L	No
Carbofuran	Jan 24	0.01<MDL	µg/L	No
Carbon Tetrachloride	Jan 24	0.17<MDL	µg/L	No
Chlorpyrifos	Jan 24	0.02<MDL	µg/L	No
Diazinon	Jan 24	0.02<MDL	µg/L	No
Dicamba	Jan 24	0.20<MDL	µg/L	No
1,2-Dichlorobenzene	Jan 24	0.41<MDL	µg/L	No
1,4-Dichlorobenzene	Jan 24	0.36<MDL	µg/L	No
1,2-Dichloroethane	Jan 24	0.35<MDL	µg/L	No
Dichloromethane	Jan 24	0.35<MDL	µg/L	No
2,4-Dichlorophenol	Jan 24	0.15<MDL	µg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	Jan 24	0.19<MDL	µg/L	No
Diclofop-methyl	Jan 24	0.40<MDL	µg/L	No
Dimethoate	Jan 24	0.06<MDL	µg/L	No
Diquat	Jan 24	1<MDL	µg/L	No
Diuron	Jan 24	0.03<MDL	µg/L	No
Glyphosate	Jan 24	1<MDL	µg/L	No

Parameter	Sample Date	Results Value	Unit of Measure	Exceedance
HAA (NOTE: show latest annual average)	Average	5.3<MDL	µg/L	No
Malathion	Jan 24	0.02<MDL	µg/L	No
Metolachlor	Jan 24	0.01<MDL	µg/L	No
Metribuzin	Jan 24	0.02<MDL	µg/L	No
Monochlorobenzene	Jan 24	0.30<MDL	µg/L	No
Paraquat	Jan 24	1<MDL	µg/L	No
Pentachlorophenol	Jan 24	0.15<MDL	µg/L	No
Phorate	Jan 24	0.01<MDL	µg/L	No
Picloram	Jan 24	1<MDL	µg/L	No
Polychlorinated Biphenyls(PCB)	Jan 24	0.04<MDL	µg/L	No
Prometryne	Jan 24	0.03<MDL	µg/L	No
Simazine	Jan 24	0.01<MDL	µg/L	No
THM (NOTE: show latest annual average)	Average	2.13	µg/L	No
Terbufos	Jan 24	0.01<MDL	µg/L	No
Tetrachloroethylene	Jan 24	0.35<MDL	µg/L	No
2,3,4,6-Tetrachlorophenol	Jan 24	0.20<MDL	µg/L	No
Triallate	Jan 24	0.01<MDL	µg/L	No
Trichloroethylene	Jan 24	0.44<MDL	µg/L	No
2,4,6-Trichlorophenol	Jan 24	0.25<MDL	µg/L	No
Trifluralin	Jan 24	0.02<MDL	µg/L	No
Vinyl Chloride	Jan 24	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			