

Miller Manor Apartments Drinking Water System

Waterworks # 260006958
System Category – Small Municipal Residential

Annual Water Report

Prepared For: The Corporation of the United Counties of
Leeds and Grenville

Reporting Period of January 1st – December 31st 2022

Issued: January 27, 2023

Revision: 1

Operating Authority:



This report has been prepared to satisfy the annual reporting requirements in O.Reg 170/03 Section 11

Table of Contents

Annual Water Report	1
Revision History	2
Report Availability	2
Compliance Report Card	2
System Process Description	2
Raw Source	2
Treatment.....	2
Distribution	3
Treatment Chemicals used during the reporting year:	3
Summary of Non-Compliance	3
Adverse Water Quality Incidents.....	3
Non-Compliance	3
Non-Compliance Identified in a Ministry Inspection:.....	3
Flows	4
Treated Water Monthly Total Flow (m ³)	4
Treated Water Daily Average Flow (m ³ /day).....	4
Raw Water Monthly Total Flow (m ³)	5
Raw Water Average Daily Flow (m ³ /day)	5
Regulatory Sample Results Summary	5
Microbiological Testing.....	5
Operational Testing	6
Inorganic Parameters	6
Schedule 15 Sampling:	6
Organic Parameters	7
Additional Legislated Samples	8
Major Maintenance Summary	8

Revision History

Date	Revision #	Revision Notes
January 20, 2023	0	Annual report issued.
January 27, 2023	1	Update flow values to match the correct way to read flow meter

Report Availability

This system does **not** serve more than 10,000 residences and the annual reports will be available free of charge by request to The United Counties of Leeds and Grenville located at 25 Central Ave. W., Suite 100, Brockville, ON K6V 4N6.

There are no other water systems connected to this building.

Compliance Report Card

Compliance Event	# of Events
Ministry of Environment Inspections	1
Ministry of Labour Inspections	0
AWQI's/BWA	0/0
Non-Compliance	0
Community Complaints	0
Spills	0
Watermain Breaks	0

System Process Description

Raw Source

The supply well is a drilled well located southeast of the apartment building. The well casing extends well above grade and was observed to consist of 6 inch diameter metal casing. The well cap was secured and vented. The existing ground surface at the well slopes away from the well.

Treatment

The treatment system is housed within a utility room on the ground floor of the apartment building. The drinking water system consists of a drilled well, pump and two pressure tanks, a twin water softener, 5 micron filters and UV units with solenoid valves followed by a flow meter.

Distribution

The entire distribution system is contained within the building and supplies approximately 17 apartments.

Treatment Chemicals used during the reporting year:

Chemical Name	Use	Supplier
Potassium Chloride	Softener	Windsor

Summary of Non-Compliance

Adverse Water Quality Incidents

Date	AWQI #	Location	Problem	Details	Legislation	Corrective Action Taken
None to report.						

Non-Compliance

Legislation	requirement(s) system failed to meet	duration of the failure (i.e. date(s))	Corrective Action	Status
None to report.				

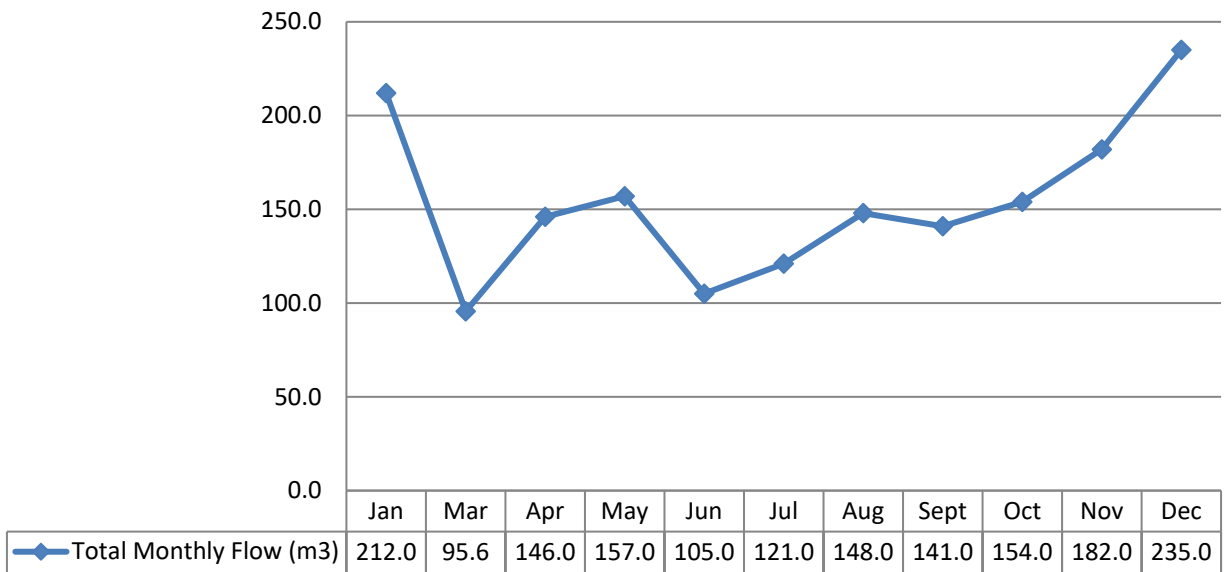
Non-Compliance Identified in a Ministry Inspection:

Legislation	requirement(s) system failed to meet	duration of the failure (i.e. date(s))	Corrective Action	Status
None to report.				

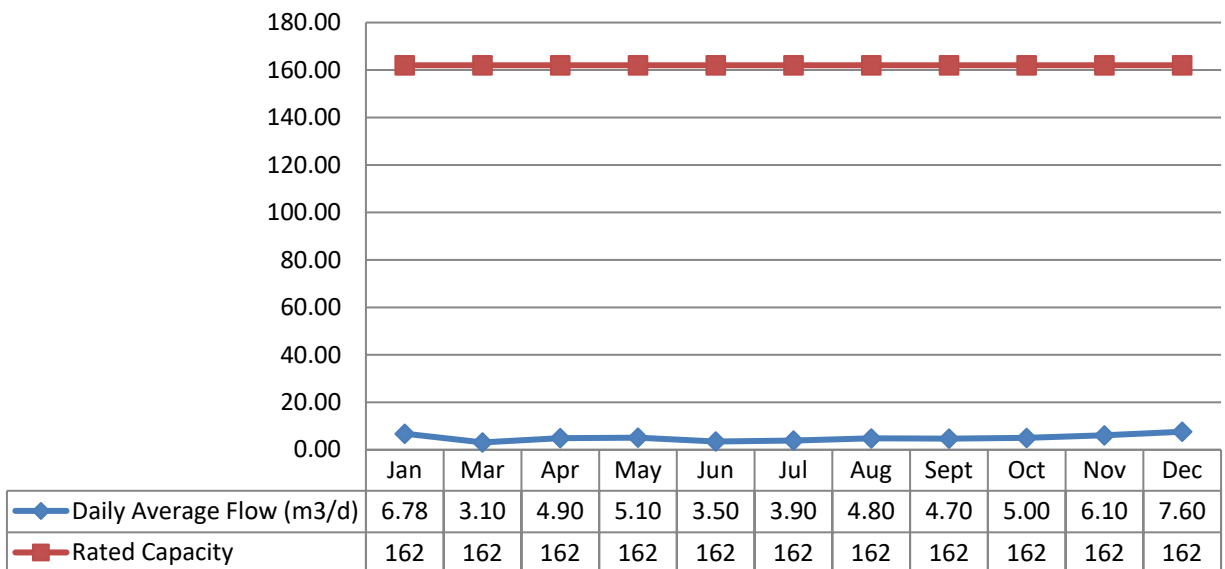
Flows

The raw water taking required to supply Miller Manor Drinking Water System is less than 50 m³ per day. Drinking water systems with flows less than 50 m³ per day do not require a Permit to Take Water (PTTW) in Ontario. Due to flow meter issues, flows were not collected accurately in February.

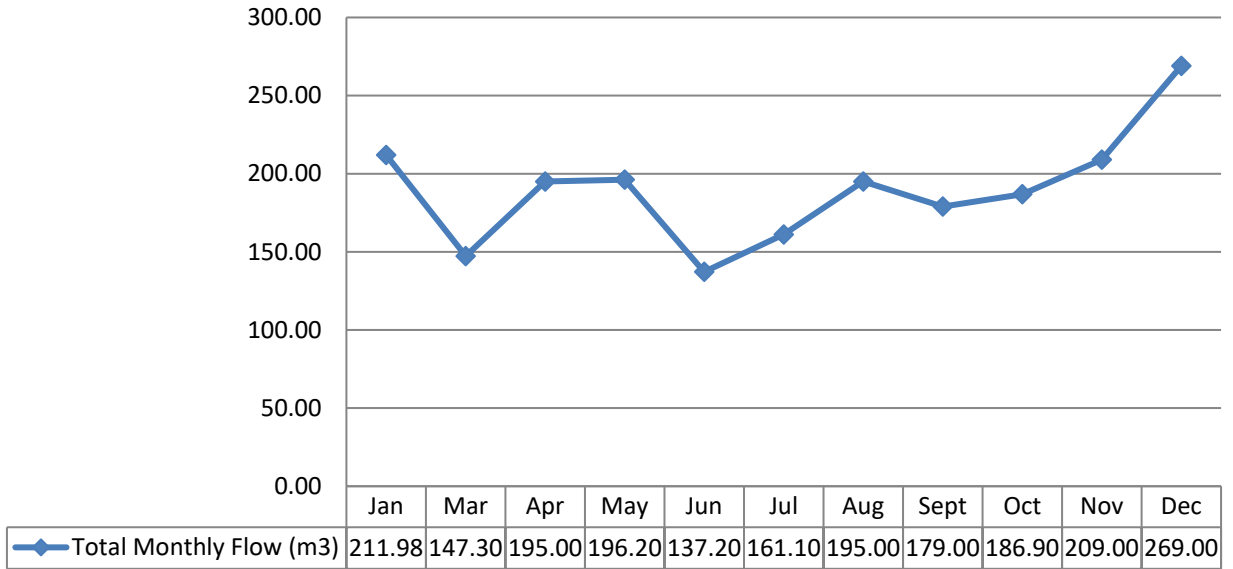
Treated Water Monthly Total Flow (m³)



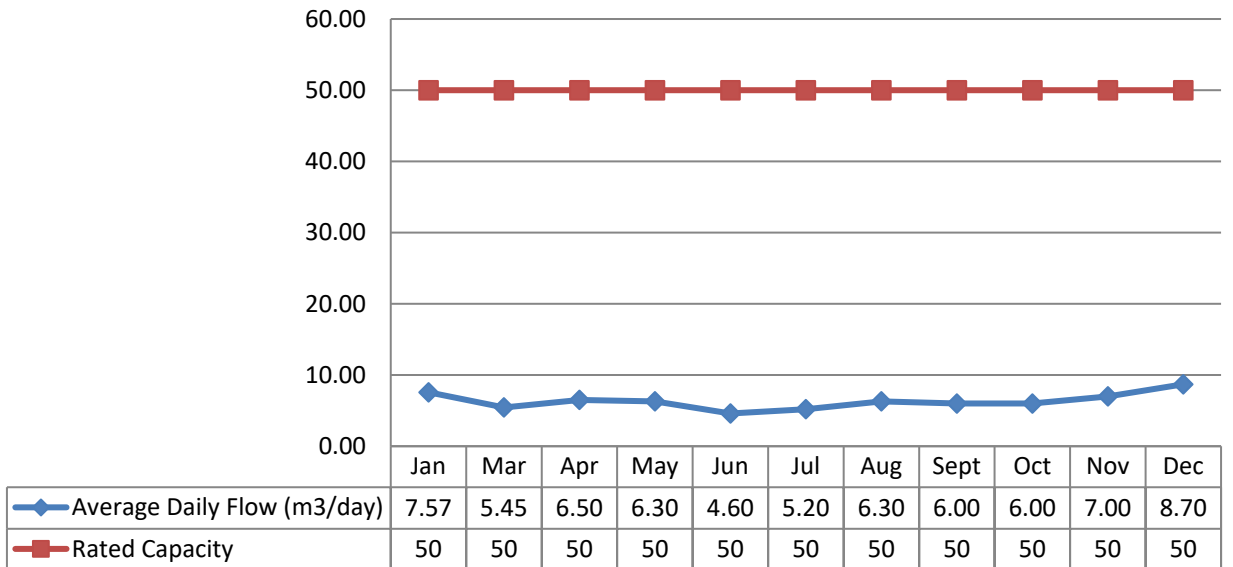
Treated Water Daily Average Flow (m³/day)



Raw Water Monthly Total Flow (m³)



Raw Water Average Daily Flow (m³/day)



Regulatory Sample Results Summary

Microbiological Testing

	No. of Samples Collected	Range of E.Coli Results		Range of Total Coliform Results		Range of HPC Results	
		Min	Max	Min	Max	Min	Max
Raw Water	12	0	0	0	0	N/A	N/A
Distribution Water	12	0	0	0	0	0	17

Operational Testing

	No. of Samples Collected	Range of Results	
		Minimum	Maximum
Turbidity, In-House (NTU) - RW	12	0.04	0.78

Inorganic Parameters

These parameters are tested as a requirement under O. Reg. 170/03. Sodium and Uranium are required to be tested every 60 months and nitrate and nitrite are tested quarterly. Additional sampling relief has been provided in MDWL Issue #5, Schedule D/Section 1.1 which states: “Discontinue testing of treated water for O. Reg. 170/03 Schedule 23 (inorganic) and 24 (organic) parameters except for uranium as noted above. (Schedule 13-2(3) & Schedule 13-4(3) respectively).” Section 1.1 also states that Fluoride sampling can be discontinued.

- MAC = Maximum Allowable Concentration as per O. Reg. 169/03
- <MDL = Less than Method Detection Limit

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	No. of Exceedances	
				MAC	1/2 MAC
Treated Water					
Antimony: Sb (ug/L) - TW	2009/11/17	<MDL 1.0	6.0	No	No
Arsenic: As (ug/L) - TW	2009/11/17	<MDL 1.0	25.0	No	No
Barium: Ba (ug/L) - TW	2009/11/17	20	1000.0	No	No
Boron: B (ug/L) - TW	2009/11/17	60	5000.0	No	No
Cadmium: Cd (ug/L) - TW	2009/11/17	<MDL 0.1	5.0	No	No
Chromium: Cr (ug/L) - TW	2009/11/17	4	50.0	No	No
Mercury: Hg (ug/L) - TW	2009/11/17	<MDL0.1	1.0	No	No
Selenium: Se (ug/L) - TW	2009/11/17	1.0	50.0	No	No
Uranium: U (ug/L) - TW	2021/09/08	10	20.0	No	Yes
Additional Inorganics					
Nitrite (mg/L) - TW	2022/01/24	<MDL 0.10	1.0	No	No
Nitrite (mg/L) - TW	2022/04/19	<MDL 0.10	1.0	No	No
Nitrite (mg/L) - TW	2022/07/13	<MDL 0.10	1.0	No	No
Nitrite (mg/L) - TW	2022/10/05	<MDL 0.10	1.0	No	No
Nitrate (mg/L) - TW	2022/01/24	5.14	10.0	No	Yes
Nitrate (mg/L) - TW	2022/04/19	2.48	10.0	No	No
Nitrate (mg/L) - TW	2022/07/13	3.67	10.0	No	No
Nitrate (mg/L) - TW	2022/10/05	3.65	10.0	No	No
Fluoride (mg/L) - TW	2016/09/30	0.46	1.5	No	No
Sodium: Na (mg/L) - TW	2021/09/08	2.0	20*	No	No

*There is no "MAC" for Sodium. The aesthetic objective for sodium in drinking water is 200 mg/L. The local Medical Officer of Health should be notified when the sodium concentration exceeds 20 mg/L so that this information may be communicated to local physicians for their use with patients on sodium restricted diets.

Schedule 15 Sampling:

The system is exempt from Schedule 15 sampling under O.Reg 170/03, as per the 2021-22 Ministry inspection report stating “If the results during these next two periods (Sept 2021 and Jan 2022) meet the conditions of subsection 15.1-5(9) then the final relief of subsection 15.1-5(10) applies. This would mean no lead samples from

plumbing are required, unless the Ministry requires it in the future.” The January 2022 sample results are listed below, and both periods were below the MAC. Therefore, lead sampling relief applies.

Distribution System	Number of Sampling Points	Number of Samples	Range of Results		MAC (ug/L)	Number of Exceedances
			Minimum	Maximum		
Lead (ug/L)	1	2	< 1.0	< 1.0	10	0

Organic Parameters

As stated above, this system has discontinued sampling Schedule 23/24 parameters under O.Reg. 170.

- MAC = Maximum Allowable Concentration as per O. Reg. 169/03
- <MDL = Less than Method Detection Limit

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
Treated Water					
Alachlor (ug/L) - TW	2009/11/17	<MDL 0.5	5.0	No	No
Atrazine + N-dealkylated metabolites (ug/L) - TW	2009/11/17	<MDL 0.2	20.0	No	No
Azinphos-methyl (ug/L) - TW	2009/11/17	<MDL 2.0	1.0	No	No
Benzene (ug/L) - TW	2009/11/17	<MDL 0.5	0.01	No	No
Benzo(a)pyrene (ug/L) - TW	2009/11/17	<MDL 0.01	5.0	No	No
Bromoxynil (ug/L) - TW	2009/11/17	<MDL 0.5	90.0	No	No
Carbaryl (ug/L) - TW	2009/11/17	<MDL 5.0	90.0	No	No
Carbofuran (ug/L) - TW	2009/11/17	<MDL 5.0	2.0	No	No
Carbon Tetrachloride (ug/L) - TW	2009/11/17	<MDL 0.5	90.0	No	No
Chlorpyrifos (ug/L) - TW	2009/11/17	<MDL 1.0	20.0	No	No
Diazinon (ug/L) - TW	2009/11/17	<MDL 1.0	120.0	No	No
Dicamba (ug/L) - TW	2009/11/17	<MDL 1.0	200.0	No	No
1,2-Dichlorobenzene (ug/L) - TW	2009/11/17	<MDL 0.4	5.0	No	No
1,4-Dichlorobenzene (ug/L) - TW	2009/11/17	<MDL 0.4	5.0	No	No
1,2-Dichloroethane (ug/L) - TW	2009/11/17	<MDL 0.5	14.0	No	No
1,1-Dichloroethylene (ug/L) - TW	2009/11/17	<MDL 0.5	50.0	No	No
Dichloromethane (Methylene Chloride) (ug/L) - TW	2009/11/17	<MDL 0.5	900.0	No	No
2,4-Dichlorophenol (ug/L) - TW	2009/11/17	<MDL 0.5	100.0	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L) - TW	2009/11/17	<MDL 1.0	9.0	No	No
Diclofop-methyl (ug/L) - TW	2009/11/17	<MDL 0.9	20.0	No	No
Dimethoate (ug/L) - TW	2009/11/17	<MDL 2.5	70.0	No	No
Diquat (ug/L) - TW	2009/11/17	<MDL 7.0	150.0	No	No
Diuron (ug/L) - TW	2009/11/17	<MDL 10.0	280.0	No	No
Glyphosate (ug/L) - TW	2009/11/17	<MDL 10.0	190.0	No	No
Malathion (ug/L) - TW	2009/11/17	<MDL 5.0	50.0	No	No
Metolachlor (ug/L) - TW	2009/11/17	<MDL 0.5	80.0	No	No
Metribuzin (ug/L) - TW	2009/11/17	<MDL 5.0	10.0	No	No
Monochlorobenzene (Chlorobenzene) (ug/L) - TW	2009/11/17	<MDL 0.2	3.0	No	No
Paraquat (ug/L) - TW	2009/11/17	<MDL 1.0	60.0	No	No
PCB (ug/L) - TW	2009/11/17	<MDL 0.1	2.0	No	No

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
Pentachlorophenol (ug/L) - TW	2009/11/17	<MDL 0.5	190.0	No	No
Phorate (ug/L) - TW	2009/11/17	<MDL 0.5	1.0	No	No
Picloram (ug/L) - TW	2009/11/17	<MDL 5.0	5.0	No	No
Prometryne (ug/L) - TW	2009/11/17	<MDL 0.25	20.0	No	No
Simazine (ug/L) - TW	2009/11/17	<MDL 1.0	10.0	No	No
Terbufos (ug/L) - TW	2009/11/17	<MDL 0.4	1.0	No	No
Tetrachloroethylene (ug/L) - TW	2009/11/17	<MDL 0.3	10.0	No	No
2,3,4,6-Tetrachlorophenol (ug/L) - TW	2009/11/17	<MDL 0.5	100.0	No	No
Triallate (ug/L) - TW	2009/11/17	<MDL 1.0	230.0	No	No
Trichloroethylene (ug/L) - TW	2009/11/17	<MDL 0.3	5.0	No	No
2,4,6-Trichlorophenol (ug/L) - TW	2009/11/17	<MDL 0.5	5.0	No	No
Trifluralin (ug/L) - TW	2009/11/17	<MDL 0.4	45.0	No	No
Vinyl Chloride (ug/L) - TW	2009/11/17	<MDL 0.2	1.0	No	No

Additional Legislated Samples

No additional sampling required.

Major Maintenance Summary

Description
- UV lamps replaced October 5, 2022