The Maples
Drinking Water System

Waterworks # 260006971
System Category – Small Municipal Residential

2022 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:

OCWA
ONTARIO CLEAN WATER AGENCY
AGENCE ONTARIENNE DES EAUX

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

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Revision History

Date	Revision #	Revision Notes
January 20, 2023	0	Annual report issued.
January 27, 2023	1	Update flows to reflect 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

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

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 water softener, 5 micron filter and UV units with solenoid valves followed by a flow meter. The well water is pumped from the well to the treatment room, then to the various plumbing fixtures within the apartment building.

The entire distribution system is contained within the building and supplies approximately 15 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.				

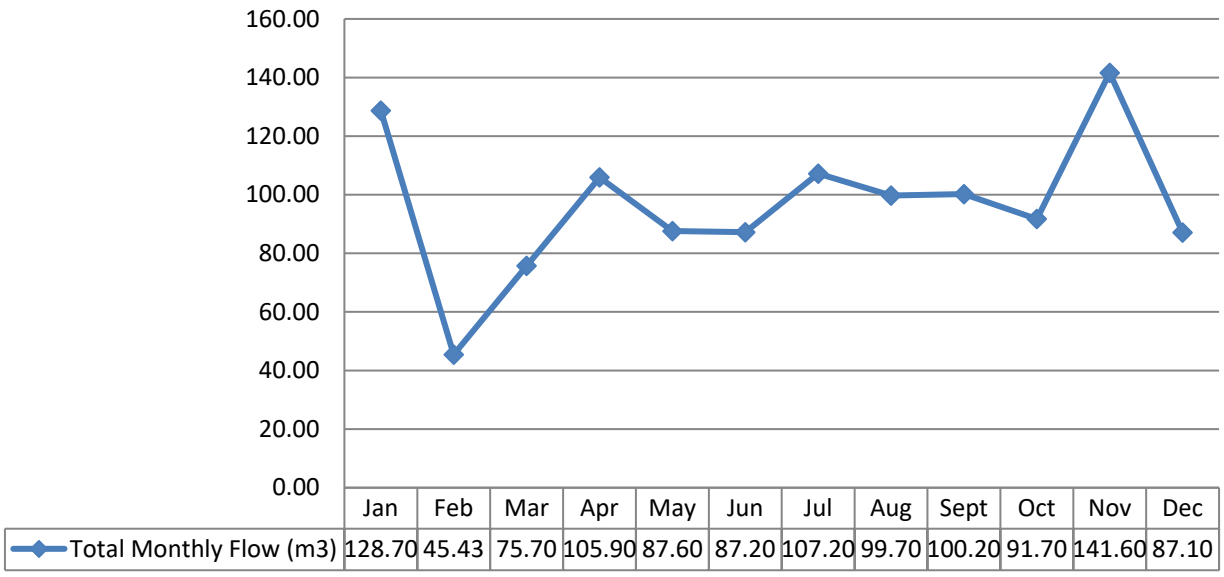
Non-Compliance Identified in a Ministry Inspection:

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

Flows

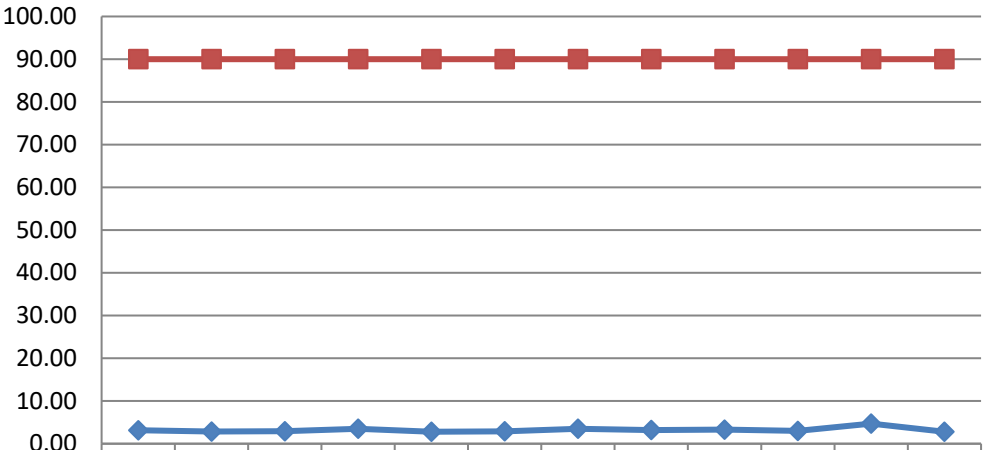
The raw water taking required to supply The Maples Drinking Water System is less than 50 m^3 per day. Drinking water systems with flows less than 50 m^3 per day do not require a Permit to Take Water (PTTW) in Ontario. Due to flow meter issues, the flow for September 2022 was not recorded.

Treated Water Monthly Total Flow (m^3)



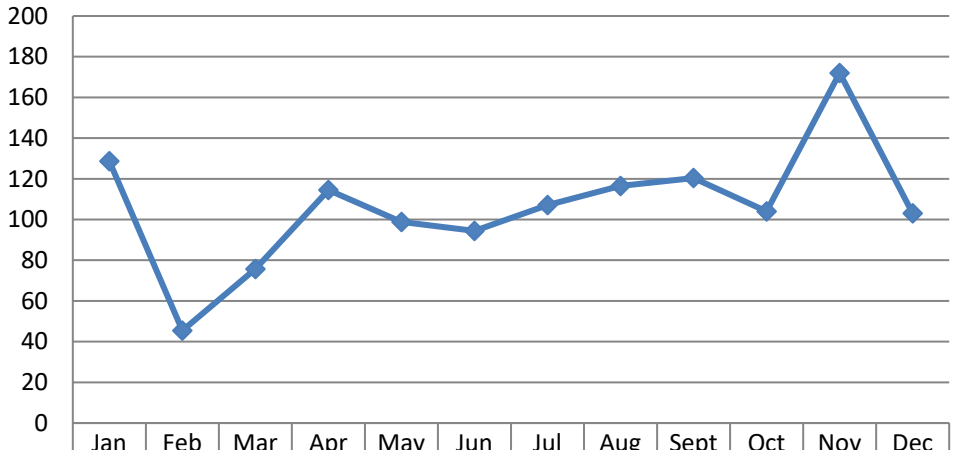
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Total Monthly Flow (m3)	128.70	45.43	75.70	105.90	87.60	87.20	107.20	99.70	100.20	91.70	141.60	87.10

Treated Water Daily Average Flow (m^3/day)



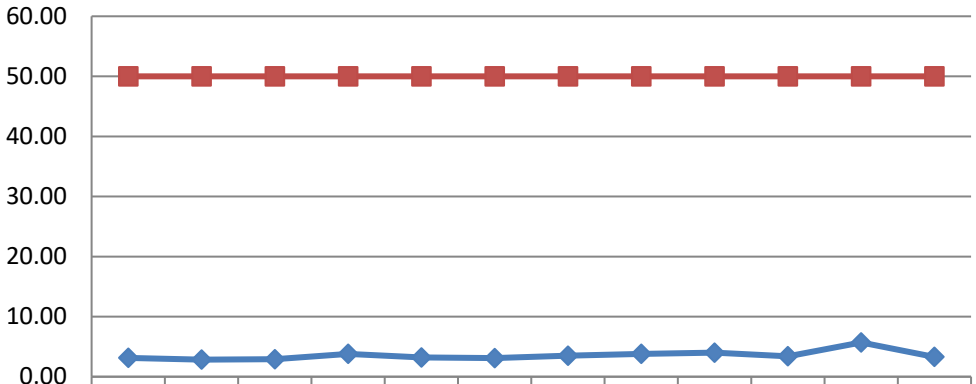
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Daily Average Flow (m3)	3.14	2.84	2.91	3.50	2.80	2.90	3.50	3.20	3.30	3.00	4.70	2.80
Rated Capacity	90	90	90	90	90	90	90	90	90	90	90	90

Raw Water Monthly Total Flow (m^3)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Total Monthly Flow (m3)	128.7	45.4	75.7	114.5	98.8	94.4	107.1	116.5	120.4	104	172	103

Raw Water Daily Average Flow (m^3/day)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Average Daily Flow (m3)	3.14	2.84	2.91	3.80	3.20	3.10	3.50	3.80	4.00	3.40	5.70	3.30
Rated Capacity	50	50	50	50	50	50	50	50	50	50	50	50

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	21

Operational Testing

	No. of Samples Collected	Range of Results	
		Minimum	Maximum
Turbidity, In-House (NTU) - RW	12	0.11	0.85

Inorganic Parameters

These parameters are tested as a requirement under O. Reg. 170/03. Sodium is 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. (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	2012/06/13	<MDL 1.0	6.0	No	No

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	No. of Exceedances	
				MAC	1/2 MAC
Arsenic: As (ug/L) - TW	2012/06/13	0.3	25.0	No	No
Barium: Ba (ug/L) - TW	2012/06/13	<MDL 1.0	1000.0	No	No
Boron: B (ug/L) - TW	2012/06/13	88	5000.0	No	No
Cadmium: Cd (ug/L) - TW	2012/06/13	<MDL 0.2	5.0	No	No
Chromium: Cr (ug/L) - TW	2012/06/13	<MDL 2.0	50.0	No	No
Mercury: Hg (ug/L) - TW	2012/06/13	<MDL 0.2	1.0	No	No
Selenium: Se (ug/L) - TW	2012/06/13	<MDL 1.00	50.0	No	No
Uranium: U (ug/L) - TW	2012/06/13	0.69	20.0	No	No
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	2022/07/12	<MDL 0.10	1.0	No	No
Nitrite (mg/L) - TW	2022/10/04	<MDL 0.10	1.0	No	No
Nitrate (mg/L) - TW	2022/01/24	<MDL 0.10	10.0	No	No
Nitrate (mg/L) - TW	2022/04/19	0.39	10.0	No	No
Nitrate (mg/L) - TW	2022/07/12	<MDL 0.10	10.0	No	No
Nitrate (mg/L) - TW	2022/10/04	<MDL 0.10	10.0	No	No
Sodium: Na (mg/L) - TW	2021/10/04	3	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:

This system is exempt from collecting Schedule 15 Lead sampling.

Organic Parameters

As stated above, this system has discontinued sampling for 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	2012/06/15	<MDL 0.3	5.0	No	No
Atrazine + N-dealkylated metabolites (ug/L) - TW	2012/06/15	<MDL 0.5	20.0	No	No
Azinphos-methyl (ug/L) - TW	2012/06/15	<MDL 1.0	1.0	No	No
Benzene (ug/L) - TW	2012/06/15	<MDL 0.5	0.01	No	No
Benzo(a)pyrene (ug/L) - TW	2012/06/15	<MDL 0.005	5.0	No	No
Bromoxynil (ug/L) - TW	2012/06/15	<MDL 0.3	90.0	No	No
Carbaryl (ug/L) - TW	2012/06/15	<MDL 3.0	90.0	No	No
Carbofuran (ug/L) - TW	2012/06/15	<MDL 1.0	2.0	No	No
Carbon Tetrachloride (ug/L) - TW	2012/06/15	<MDL 0.2	90.0	No	No
Chlorpyrifos (ug/L) - TW	2012/06/15	<MDL 0.05	20.0	No	No

	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Number of Exceedances	
				MAC	1/2 MAC
Diazinon (ug/L) - TW	2012/06/15	<MDL 1.0	120.0	No	No
Dicamba (ug/L) - TW	2012/06/15	<MDL 5.0	200.0	No	No
1,2-Dichlorobenzene (ug/L) - TW	2012/06/15	<MDL 0.1	5.0	No	No
1,4-Dichlorobenzene (ug/L) - TW	2012/06/15	<MDL 0.2	5.0	No	No
1,2-Dichloroethane (ug/L) - TW	2012/06/15	<MDL 0.1	14.0	No	No
1,1-Dichloroethylene (ug/L) - TW	2012/06/15	<MDL 0.1	50.0	No	No
Dichloromethane (Methylene Chloride) (ug/L) - TW	2012/06/15	<MDL 0.3	900.0	No	No
2,4-Dichlorophenol (ug/L) - TW	2012/06/15	<MDL 0.1	100.0	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L) - TW	2012/06/15	<MDL 5.0	9.0	No	No
Diclofop-methyl (ug/L) - TW	2012/06/15	<MDL 0.5	20.0	No	No
Dimethoate (ug/L) - TW	2012/06/15	<MDL 1.0	70.0	No	No
Diquat (ug/L) - TW	2022/06/20	<MDL 5.0	150.0	No	No
Diuron (ug/L) - TW	2012/06/15	<MDL 5.0	280.0	No	No
Glyphosate (ug/L) - TW	2022/06/20	<MDL 25	190.0	No	No
Malathion (ug/L) - TW	2012/06/15	<MDL 5.0	50.0	No	No
Metolachlor (ug/L) - TW	2012/06/15	<MDL 3.0	80.0	No	No
Metribuzin (ug/L) - TW	2012/06/15	<MDL 3.0	10.0	No	No
Monochlorobenzene (Chlorobenzene) (ug/L) - TW	2012/06/15	<MDL 0.2	3.0	No	No
Paraquat (ug/L) - TW	2022/06/20	<MDL 1.0	60.0	No	No
PCB (ug/L) - TW	2012/06/15	<MDL 0.06	2.0	No	No
Pentachlorophenol (ug/L) - TW	2012/06/15	<MDL 0.1	190.0	No	No
Phorate (ug/L) - TW	2012/06/15	<MDL 0.3	1.0	No	No
Picloram (ug/L) - TW	2012/06/15	<MDL 5.0	5.0	No	No
Prometryne (ug/L) - TW	2012/06/15	<MDL 0.1	20.0	No	No
Simazine (ug/L) - TW	2012/06/15	<MDL 0.5	10.0	No	No
Terbufos (ug/L) - TW	2012/06/15	<MDL 0.3	1.0	No	No
Tetrachloroethylene (ug/L) - TW	2012/06/15	<MDL 0.02	10.0	No	No
2,3,4,6-Tetrachlorophenol (ug/L) - TW	2012/06/15	<MDL 0.1	100.0	No	No
Triallate (ug/L) - TW	2012/06/15	<MDL 10	230.0	No	No
Trichloroethylene (ug/L) - TW	2012/06/15	<MDL 0.1	5.0	No	No
2,4,6-Trichlorophenol (ug/L) - TW	2012/06/15	<MDL 0.1	5.0	No	No
Trifluralin (ug/L) - TW	2012/06/15	<MDL 0.5	45.0	No	No
Vinyl Chloride (ug/L) - TW	2012/06/15	<MDL 0.2	1.0	No	No

Additional Legislated Samples

No additional sampling required.

Major Maintenance Summary

Description
- Installation of new flow meter on raw water line - Replacement of flow meter on treated water line