

Victoria Place Drinking Water System

Waterworks # 220011895
System Category – Large Municipal Residential

Annual Water Report

Prepared For: The City of Kawartha Lakes

Reporting Period of January 1st – December 31st, 2023

Issued: February 21, 2024

Revision: 0

Operating Authorities:



This report has been prepared to satisfy the annual reporting requirements in O. Reg. 170/03 Section 11 and Schedule 22

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Report Availability

This system does not serve more than 10,000 residences. The annual reports will be available to residents at the City of Kawartha Lakes Public Works Administration Office and on the City’s website at: www.kawarthalakes.ca. Notification that reports are available free of charge will be made on the City of Kawartha Lakes website. The City of Kawartha Lakes Public Works Administration Office is located at 322 Kent Street West in Lindsay, Ontario.

Compliance Report Card

Drinking Water System Number: 220011895

Drinking Water System Name: Victoria Place DWS

Drinking Water System Owner: City of Kawartha Lakes

Drinking Water System Category: Large Municipal Residential

Period Being Reported: January 1, 2023 - December 31, 2023

	# of Events	Date	Details
Health & Safety			
Number of Incidents	0		
Drinking Water			
MECP Inspections	0		2023/2024 MECP Inspection began January 23, 2024.
AWQI's	1	January 16, 2023	AWQI # 161166 – Treated water sodium
Number of Non-Compliances	0		
Number of Boil Water Advisories	0		

System Process Description

Raw Source

The Victoria Place DWS is supplied with raw groundwater from four wells: Well # 1, 2, 3, and 7. The system is divided into two well banks. In the present configuration, Bank No. 1 consists of Well # 1, 2 and 3 and Bank No. 2 consists of Well #7.

Treatment

The treatment system consists of the following:

- Four groundwater wells considered to be Non-GUDI with pumps
- Sodium hypochlorite feed system with two metering pumps
- Unbaffled 295 m³ underground circular concrete storage reservoir
- Online chlorine analyzer
- Five flowmeters

- Standby diesel generator on-site.

Treatment Chemicals used during the reporting year:

Chemical Name	Use	Supplier
Sodium Hypochlorite	Disinfection	Jutzi

Summary of Non-Compliance

Adverse Water Quality Incidents

Date	AWQI #	Location	Problem	Details	Legislation	Corrective Action Taken
January 16, 2023	161166	Treated	Sodium exceedance	The sodium in the treated water exceeded 20 mg/l with a result of 34.5 mg/L	O. Reg. 170/03	Resample of treated water. Notification of residents.

Non-Compliance

There were no non-compliance issues reported during the reporting period.

Non-Compliance Identified in a Ministry Inspection

There were no Ministry Inspection reports received during this period.

Flows

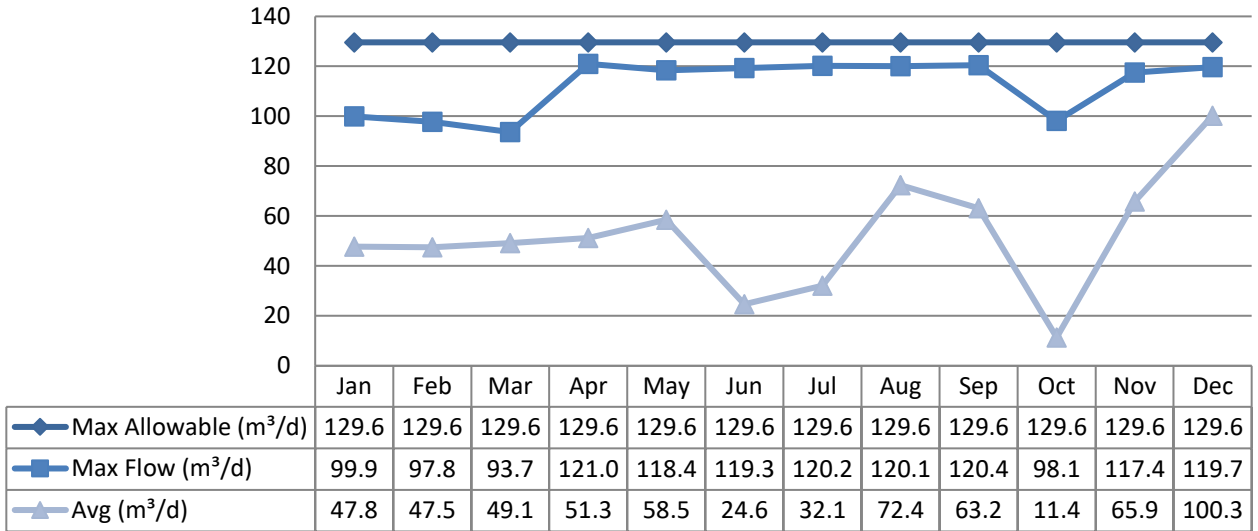
The Victoria Place Drinking Water System is operating on average under half the rated capacity.

Raw Water Flows

The Raw Water flows are regulated under the Permit to Take Water. 2023 Raw Flow Data was submitted to the Ministry electronically under permit #5275-AY5Q6S. The confirmation and a copy of the data that was submitted are attached in Appendix A.

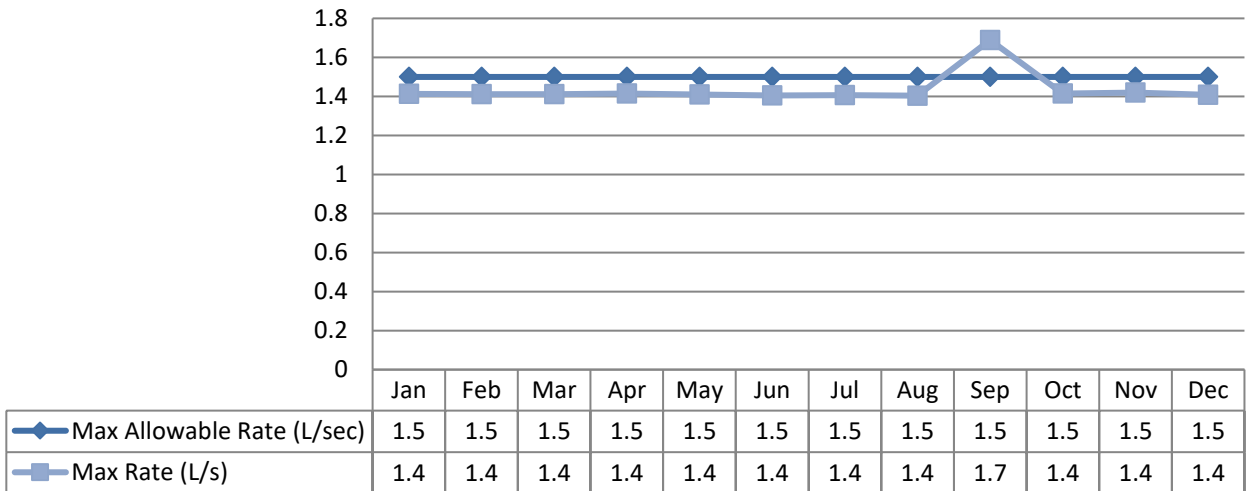
Total Monthly Flows (m³/d)

Max Allowable PTTW- Well #1



Monthly Rated Flows (L/s)

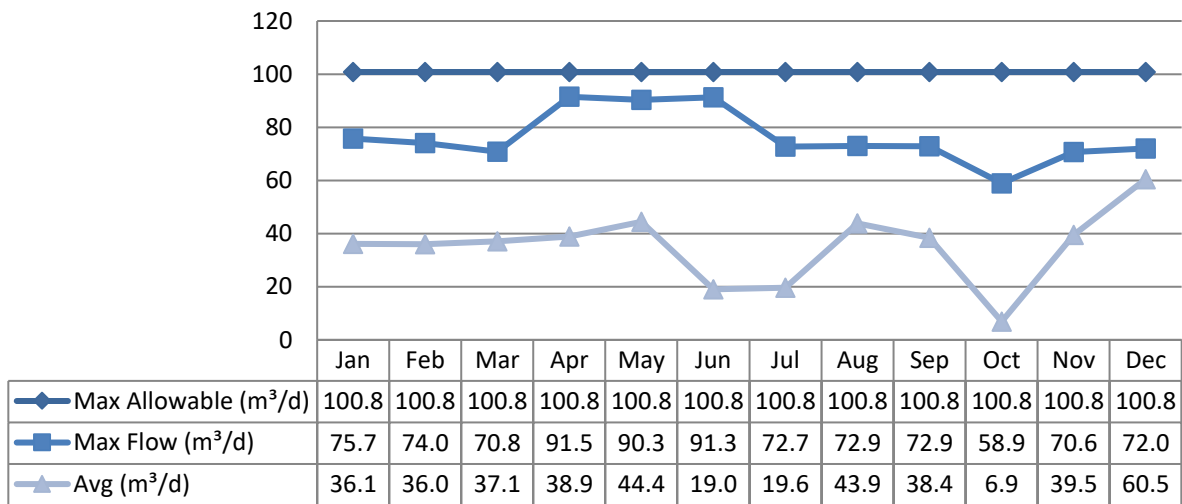
Max allowable rate – PTTW- Well #1



Note: The above table shows there were exceedances in instantaneous peak flow rate (L/s). The significant spike in September was due to scheduled Flow Meter calibration.

Total Monthly Flows (m³/d)

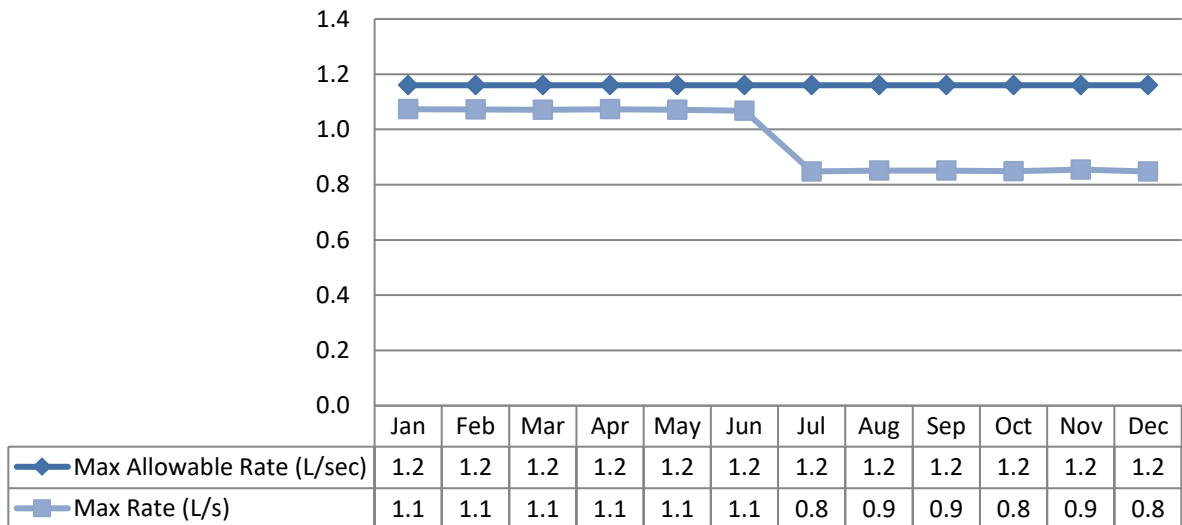
Max Allowable rate - PTTW- Well #2



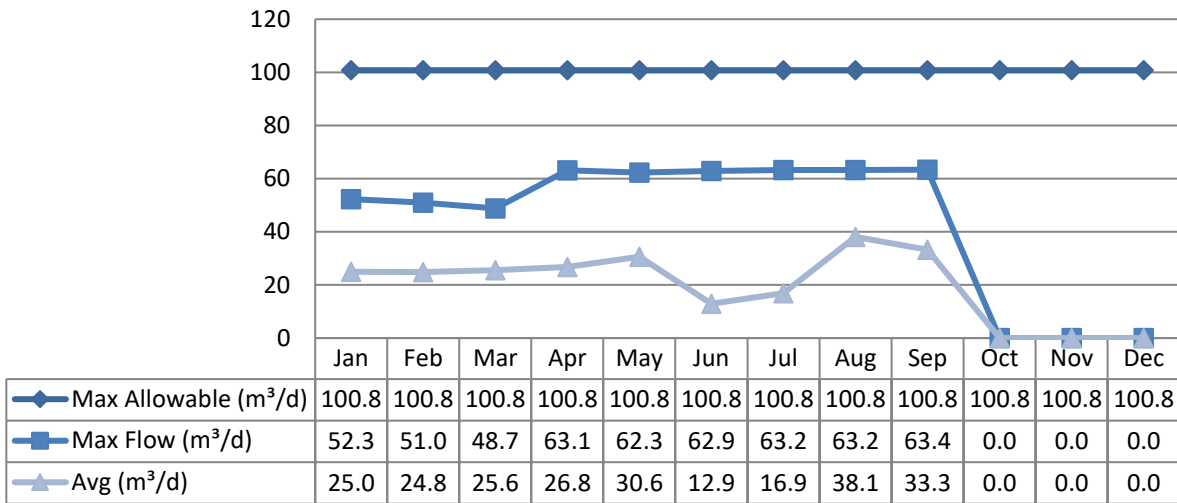
Note: Well 2 offline for much of October 2023 for well maintenance.

Monthly Rated Flows (L/s)

Max allowable rate – PTTW- Well #2

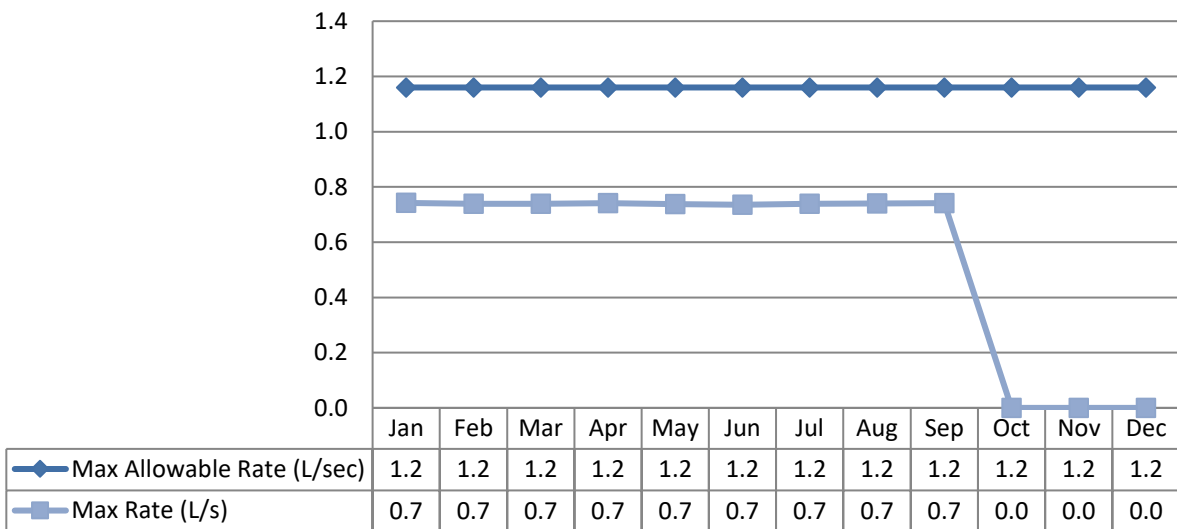


Total Monthly Flows (m³/d)
Max Allowable PTTW- Well #3



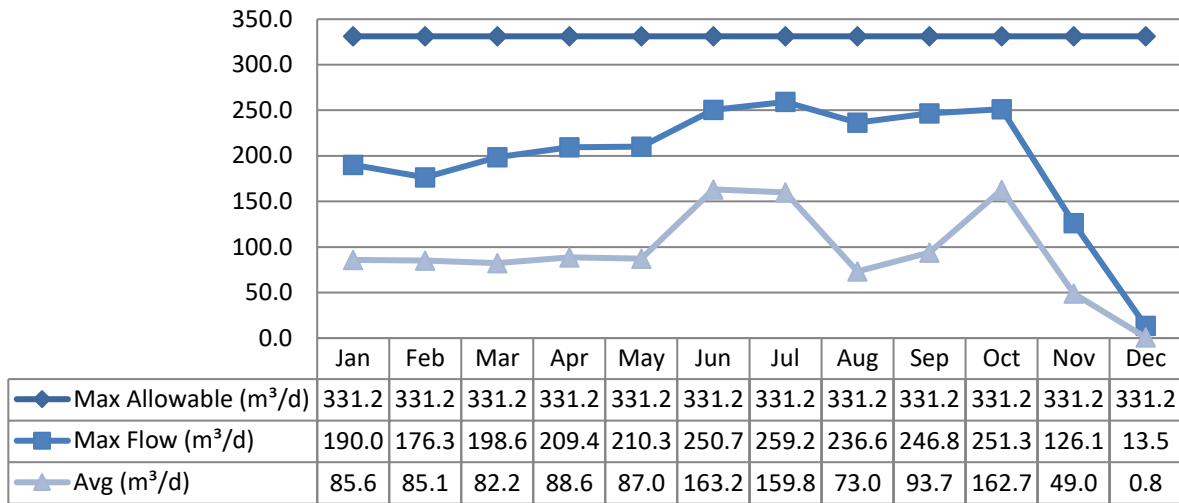
Note: Well 3 not in use following well casing collapse on September 28, 2023.

Monthly Rated Flows (L/s)
Max allowable rate – PTTW- Well #3



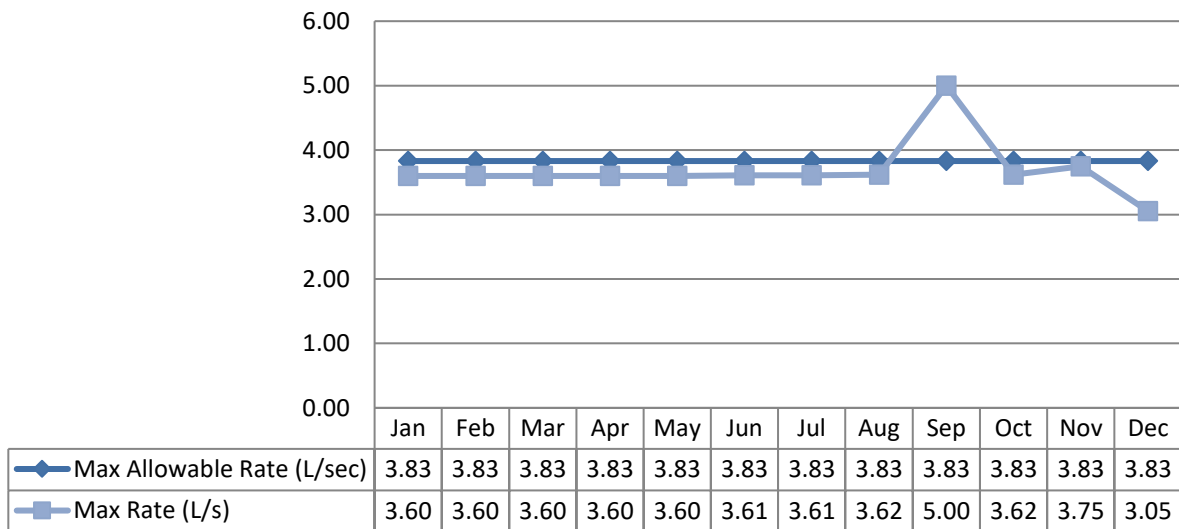
Note: Well 3 not in use following well casing collapse on September 28, 2023.

Total Monthly Flows (m³/d)
Max Allowable PTTW- Well #7



Note: Well 7 was out of service temporarily in November and December due to well maintenance.

Monthly Rated Flows (L/s)
Max allowable rate – PTTW- Well #7



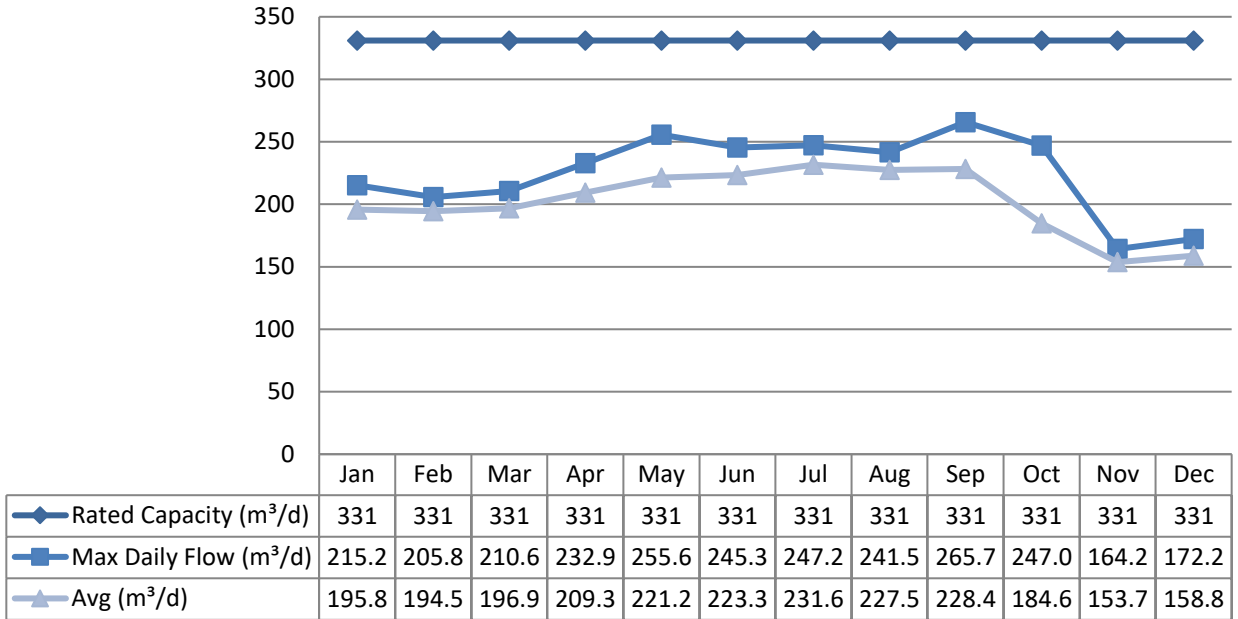
Note: The above table shows there were exceedances in instantaneous peak flow rate (L/s). The significant spike in September was due to scheduled Flow Meter calibration.

Treated Water Flows

The Treated Water flows are regulated under the Municipal Drinking Water Licence (MDWL) 141-114.

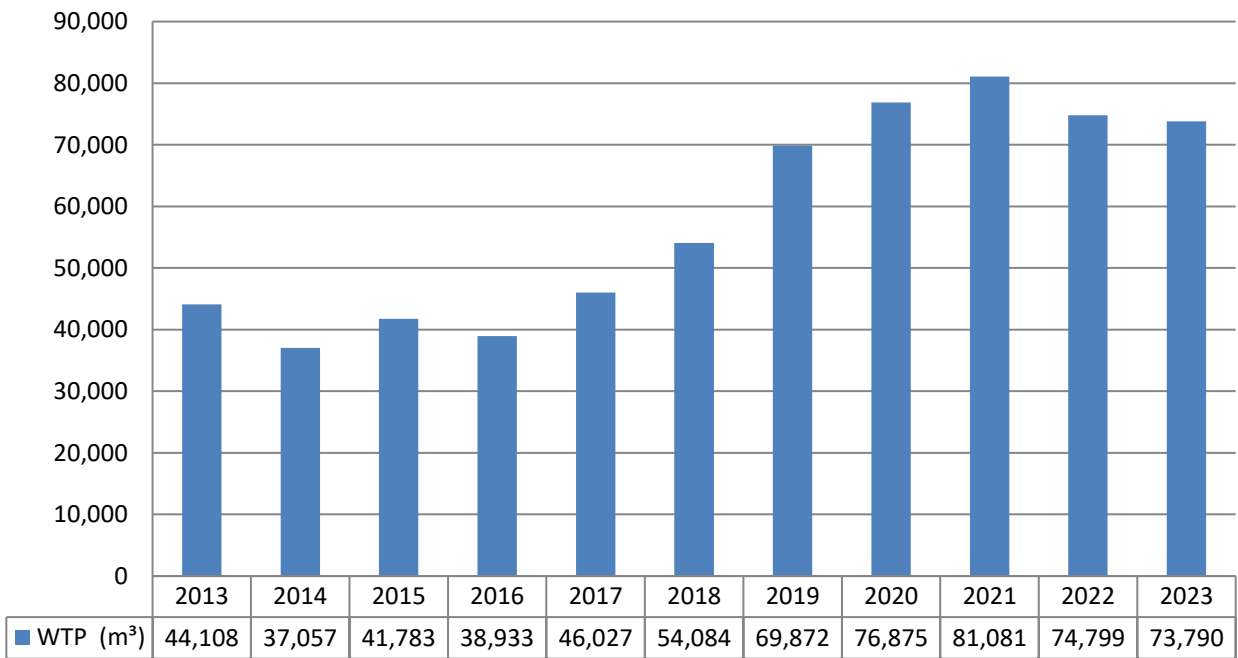
Monthly Rated Flows

Rated Capacity - MDWL



Annual Total Flow Comparison

Total Annual m³



Regulatory Sample Results Summary

Microbiological Testing

	No. of Samples Collected	Range of E. Coli Results	Range of E. Coli Results	Range of Total Coliform Results	Range of Total Coliform Results	Range of HPC Results	Range of HPC Results
		Min	Max	Min	Max	Min	Max
Raw Well 1	53	0	0	0	1		
Raw Well 2	53	0	0	0	5		
Raw Well 3	42*	0	3	0	1		
Raw Well 7	52	0	0	0	12		
Treated	52	0	0	0	0	0	1
Distribution	156	0	0	0	0	0	4

*Note: Well 3 not in use following well casing collapse on September 28, 2023.

Operational Testing

Parameter	Number of Samples Collected	Range of Results Minimum	Range of Results Maximum
Turbidity Well 1 (NTU)	12	0.07	0.17
Turbidity Well 2 (NTU)	12	0.06	0.16
Turbidity Well 3 (NTU)	9*	0.08	0.16
Turbidity Well 7 (NTU)	13	0.08	0.16
Chlorine	8760	1.28	1.93
Fluoride (If the DWS provides fluoridation)	N/A	N/A	N/A

Note: Record the unit of measure if it is **not** milligrams per litre.

Note: For continuous monitors 8760 is used as the number of samples. Spikes recorded by on-line instrumentation were a result of air bubbles and various maintenance/calibration activities. All spikes are reviewed for compliance with O. Reg. 170/03

*Note: Well 3 not in use following well casing collapse on September 28, 2023.

Inorganic Parameters

These parameters are tested as a requirement under O. Reg. 170/03. Sodium and Fluoride are required to be tested every 5 years. Nitrate and Nitrite are tested quarterly and the metals are tested annually as required under O. Reg. 170/03. In the event any of the parameters exceed half of the maximum allowable concentration the parameter is required to be sampled quarterly.

- MAC = Maximum Allowable Concentration as per O. Reg. 169/03
- BDL = Below the laboratory detection level

Treated Water Parameter	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Exceedance MAC	Exceedance ½ MAC
Antimony: Sb (ug/L)	2023/01/09	<MDL 0.6	6.0	No	No
Arsenic: As (ug/L)	2023/01/09	<MDL 0.2	10.0	No	No
Barium: Ba (ug/L)	2023/01/09	118.0	1000.0	No	No
Boron: B (ug/L)	2023/01/09	25.0	5000.0	No	No
Cadmium: Cd (ug/L)	2023/01/09	0.003	5.0	No	No
Chromium: Cr (ug/L)	2023/01/09	0.41	50.0	No	No
Mercury: Hg (ug/L)	2023/01/09	<MDL 0.01	1.0	No	No
Selenium: Se (ug/L)	2023/01/09	0.5	50.0	No	No
Uranium: U (ug/L)	2023/01/09	0.269	20.0	No	No
Additional Inorganics					
Fluoride (mg/L)	2023/01/09	<MDL 0.06	1.5	No	No
Nitrite (mg/L) - TW	2023/01/09	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW	2023/04/03	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW	2023/07/10	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW	2023/10/03	<MDL 0.003	1.0	No	No
Nitrate (mg/L) - TW	2023/01/09	4.95	10.0	No	No
Nitrate (mg/L) - TW	2023/04/03	4.3	10.0	No	No
Nitrate (mg/L) - TW	2023/07/10	3.95	10.0	No	No
Nitrate (mg/L) - TW	2023/10/03	4.37	10.0	No	No
Sodium: Na (mg/L) - TW	2023/01/17	21.0	20*	Yes	Yes

*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 mg/L 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 Schedule 15 Sampling is required under O. Reg. 170/03. This system is under reduced sampling. No plumbing samples were collected.

Distribution System	Number of Sampling Points	Number of Samples	Range of Results Minimum	Range of Results Maximum	MAC (ug/L)	Number of Exceedances
Alkalinity (mg/L)	2	4	230	250	N/A	N/A
pH	2	4	7.20	7.46	N/A	N/A
Lead (ug/l)	2	4	0.07	0.12	10	0

Organic Parameters

These parameters are tested annually as a requirement under O. Reg. 170/03. In the event any of the parameters exceed half of the maximum allowable concentration the parameter is required to be sampled quarterly.

Treated Water Parameter	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Exceedance MAC	Exceedance ½ MAC
Alachlor (ug/L) - TW	2023/01/09	<MDL 0.02	5.0	No	No
Atrazine + N-dealkylated metabolites (ug/L)	2023/01/09	<MDL 0.01	5.0	No	No
Azinphos-methyl (ug/L)	2023/01/09	<MDL 0.05	20.0	No	No
Benzene (ug/L)	2023/01/09	<MDL 0.32	1.0	No	No
Benzo(a)pyrene (ug/L)	2023/01/09	<MDL 0.004	0.01	No	No
Bromoxynil (ug/L)	2023/01/09	<MDL 0.33	5.0	No	No
Carbaryl (ug/L)	2023/01/09	<MDL 0.05	90.0	No	No
Carbofuran (ug/L)	2023/01/09	<MDL 0.01	90.0	No	No
Carbon Tetrachloride (ug/L)	2023/01/09	<MDL 0.17	2.0	No	No
Chlorpyrifos (ug/L)	2023/01/09	<MDL 0.02	90.0	No	No
Diazinon (ug/L)	2023/01/09	<MDL 0.02	20.0	No	No
Dicamba (ug/L)	2023/01/09	<MDL 0.2	120.0	No	No
1,2-Dichlorobenzene (ug/L)	2023/01/09	<MDL 0.41	200.0	No	No
1,4-Dichlorobenzene (ug/L)	2023/01/09	<MDL 0.36	5.0	No	No
1,2-Dichloroethane (ug/L)	2023/01/09	<MDL 0.35	5.0	No	No
1,1-Dichloroethylene (ug/L)	2023/01/09	<MDL 0.33	14.0	No	No
Dichloromethane (Methylene Chloride) (ug/L)	2023/01/09	<MDL 0.35	50.0	No	No
2,4-Dichlorophenol (ug/L)	2023/01/09	<MDL 0.15	900.0	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L)	2023/01/09	<MDL 0.19	100.0	No	No
Diclofop-methyl (ug/L)	2023/01/09	<MDL 0.4	9.0	No	No
Dimethoate (ug/L)	2023/01/09	<MDL 0.06	20.0	No	No
Diquat (ug/L)	2023/01/09	<MDL 1.0	70.0	No	No
Diuron (ug/L)	2023/01/09	<MDL 0.03	150.0	No	No
Glyphosate (ug/L)	2023/01/09	<MDL 1.0	280.0	No	No
Malathion (ug/L)	2023/01/09	<MDL 0.02	190.0	No	No
Metolachlor (ug/L)	2023/01/09	<MDL 0.01	50.0	No	No
Metribuzin (ug/L)	2023/01/09	<MDL 0.02	80.0	No	No
Monochlorobenzene (Chlorobenzene) (ug/L)	2023/01/09	<MDL 0.3	80.0	No	No
Paraquat (ug/L)	2023/01/09	<MDL 1.0	10.0	No	No
PCB (ug/L)	2023/01/09	<MDL 0.04	3.0	No	No
Pentachlorophenol (ug/L)	2023/01/09	<MDL 0.15	60.0	No	No
Phorate (ug/L)	2023/01/09	<MDL 0.01	2.0	No	No
Picloram (ug/L)	2023/01/09	<MDL 1.0	190.0	No	No

Treated Water Parameter	Sample Date (yyyy/mm/dd)	Sample Result	MAC	Exceedance MAC	Exceedance ½ MAC
Prometryne (ug/L)	2023/01/09	<MDL 0.03	1.0	No	No
Simazine (ug/L)	2023/01/09	<MDL 0.01	10.0	No	No
Terbufos (ug/L)	2023/01/09	<MDL 0.01	1.0	No	No
Tetrachloroethylene (ug/L)	2023/01/09	<MDL 0.35	10.0	No	No
2,3,4,6-Tetrachlorophenol (ug/L)	2023/01/09	<MDL 0.2	100.0	No	No
Triallate (ug/L)	2023/01/09	<MDL 0.01	230.0	No	No
Trichloroethylene (ug/L)	2023/01/09	<MDL 0.44	5.0	No	No
2,4,6-Trichlorophenol (ug/L)	2023/01/09	<MDL 0.25	5.0	No	No
2-methyl-4-chlorophenoxyacetic acid (MCPA) (ug/L)	2023/01/09	<MDL 0.12	100.0	No	No
Trifluralin (ug/L)	2023/01/09	<MDL 0.02	45.0	No	No
Vinyl Chloride (ug/L)	2023/01/09	<MDL 0.17	1.0	No	No
Distribution Water					
Trihalomethane: Total (ug/L) Annual Average	2023	21.5	100.0	No	No
HAA Total (ug/L) Annual Average	2023	5.3	80.0	No	No

MAC = Maximum Allowable Concentration as per O. Reg. 169/03

MDL = Method Detection Limit

Additional Legislated Samples



There was no additional sampling required.

Major Maintenance Summary incurred to install, repair or replace required equipment

WO #	Description
3246906	Well 2 Level Logger Issues, Troubleshoot and Repair
3435801	Well 2 Pump Failure, Troubleshoot and Repair
3575081	Faulty Thermostat, Troubleshoot
3623849	Well 7 Pipe Restriction, Investigate and Repair

Appendix A

WTRS Data and Submission Confirmation



Ministry of the Environment,
Conservation and Parks

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Location: [WTRS](#) / [WT DATA](#) / [Input WT Record](#) WTRS-WT-008

Water Taking Data submitted successfully.

Confirmation:


Thank you for submitting your water taking data online.

Permit Number: 5275-AY5Q6S
Permit Holder: THE CORPORATION OF THE CITY OF KAWARTHA LAKES.
Received on: Feb 6, 2024 2:20 PM

This confirmation indicates that your data has been received by the Ministry, but should not be construed as acceptance of this data if it differs from that specified on the Permit Number, assigned to the Permit Holder stated above.

[Print Confirmation](#) [Return to Main Page](#)

CITY OF KAWARTHA LAKES | 2024/02/06
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