

Victoria Place Drinking Water System

Waterworks # 220011895
System Category – Large Municipal Residential

Annual Water Report

Prepared For: The City of Kawartha Lakes

Issued: February 20, 2020

Revision: 0

Operating Authorities:



OCWA



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 residents. The annual reports are available to residents free of charge at the City of Kawartha Lakes – Public Works Administration Office located is at 12 Peel Street in Lindsay, Ontario. The reports are also available online at [the City's website](http://www.kawarthalakes.ca) (www.kawarthalakes.ca)

Compliance Report Card

Drinking Water System Number: 220011895

Drinking Water System Name: Victoria Place WTP

Drinking Water System Owner: City of Kawartha Lakes

Drinking Water System Category: Large Municipal Residential

Period Being Reported: January 1, 2019 - December 31, 2019

	# of Events	Date	Details
Health & Safety			
Number of Incidents	0		
Drinking Water			
MECP Inspections	1	June 5, 2019	Unannounced - Focused Drinking Water Inspection - Final Inspection Rating of 100%
AWQI's	0		
Number of Non-Compliances	0		
Number of Boil Water Advisories	0		

System Process Description

Raw Source

The Victoria Place Water Treatment Plant 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 No.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 295m³ underground circular concrete storage reservoir
- Two online chlorine analyzers

- Five flowmeters:
- Standby diesel generator on-site.

Treatment Chemicals used during the reporting year:

Chemical Name	Use	Supplier
Sodium Hypochlorite	Disinfection	Brenntag

Summary of Non-Compliance**Adverse Water Quality Incidents**

There were no adverse water quality incidents identified during the reporting period.

Non-Compliance

There were no non-compliances identified during the reporting period.

Non-Compliance Identified in a Ministry Inspection

There were no non-compliances identified in a Ministry Inspection during the reporting period.

Flows

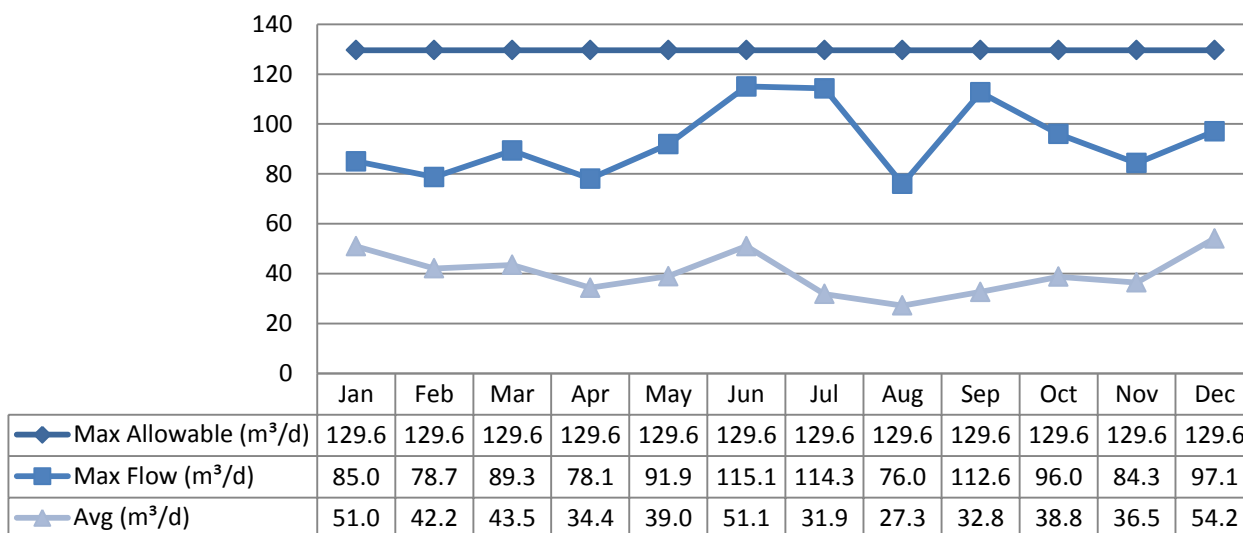
The Victoria Place Drinking Water System is operating on average under half the rated capacity.

Raw Water Flows

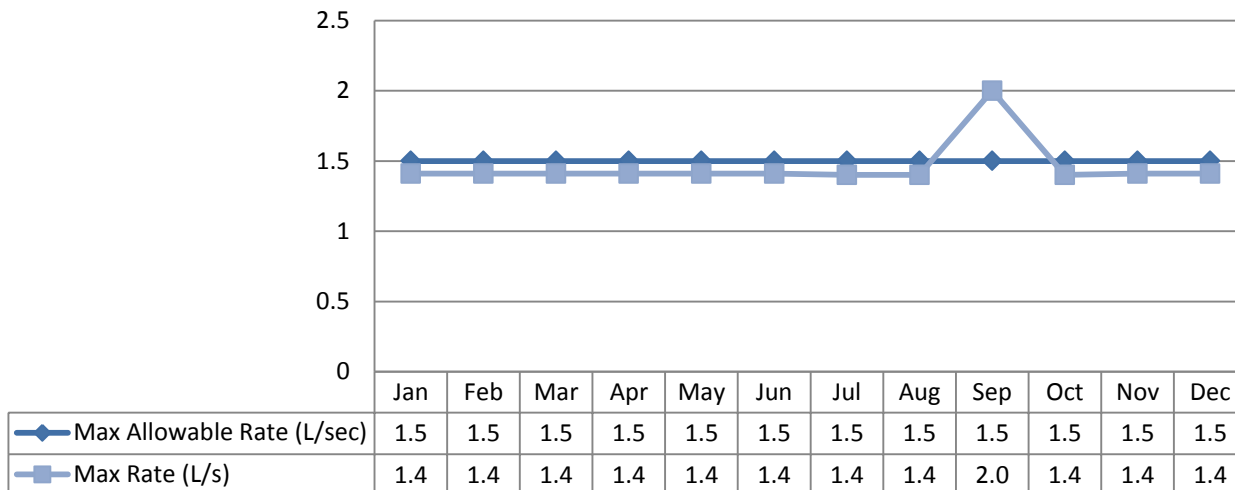
The Raw Water flows are regulated under the Permit to Take Water. 2019 Raw Flow Data was submitted to the Ministry electronically under permit #5275-AY5Q6S. The confirmation and a copy of the data that was submitted are attached in Appendix A.

Total Monthly Flows (m³/d)

Max Allowable PTTW- Well #1

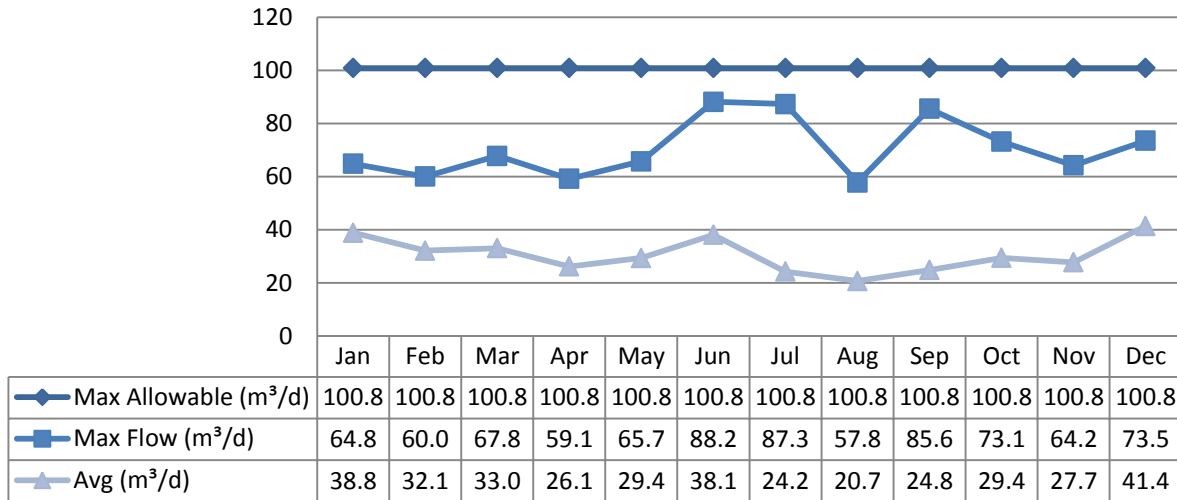
Monthly Rated Flows (L/s)

Max allowable rate – PTTW- Well #1

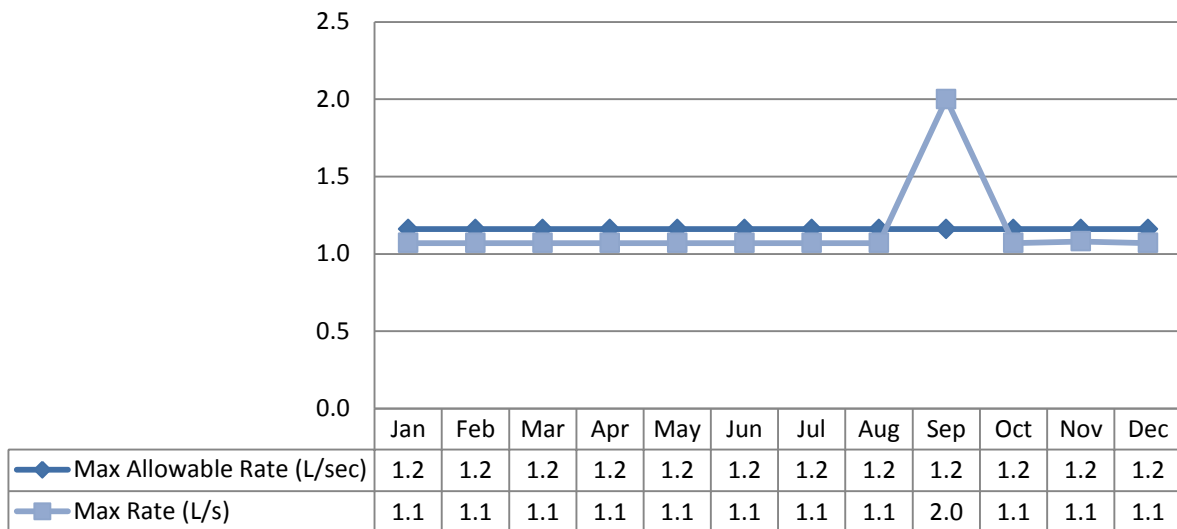


Note: The above table shows there were exceedances in instantaneous peak flow rate (L/s). The significant spike in September was due to scheduled Flow Meter calibration.

Total Monthly Flows (m³/d)
Max Allowable PTTW- Well #2



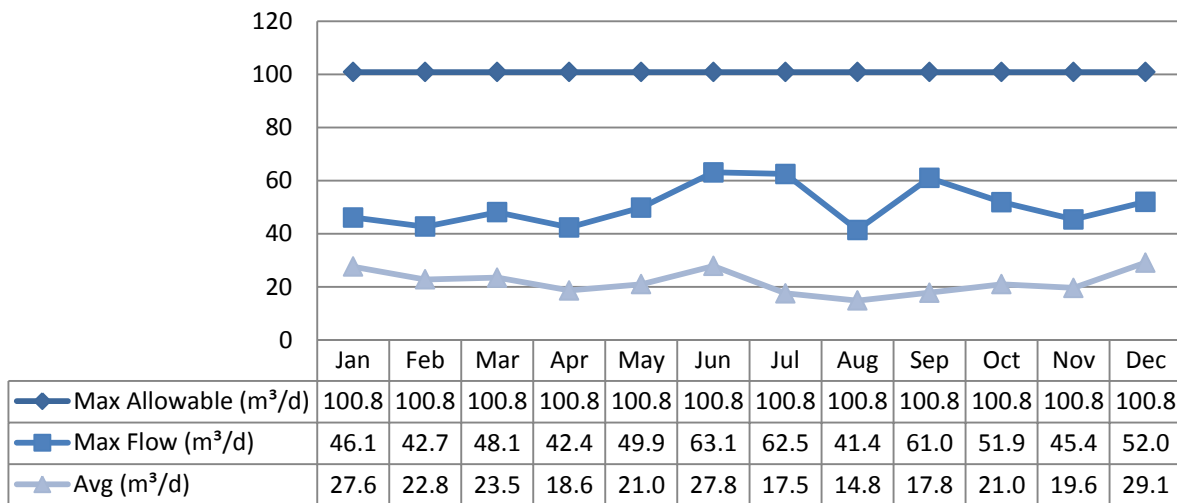
Monthly Rated Flows (L/s)
Max allowable rate – PTTW- Well #2



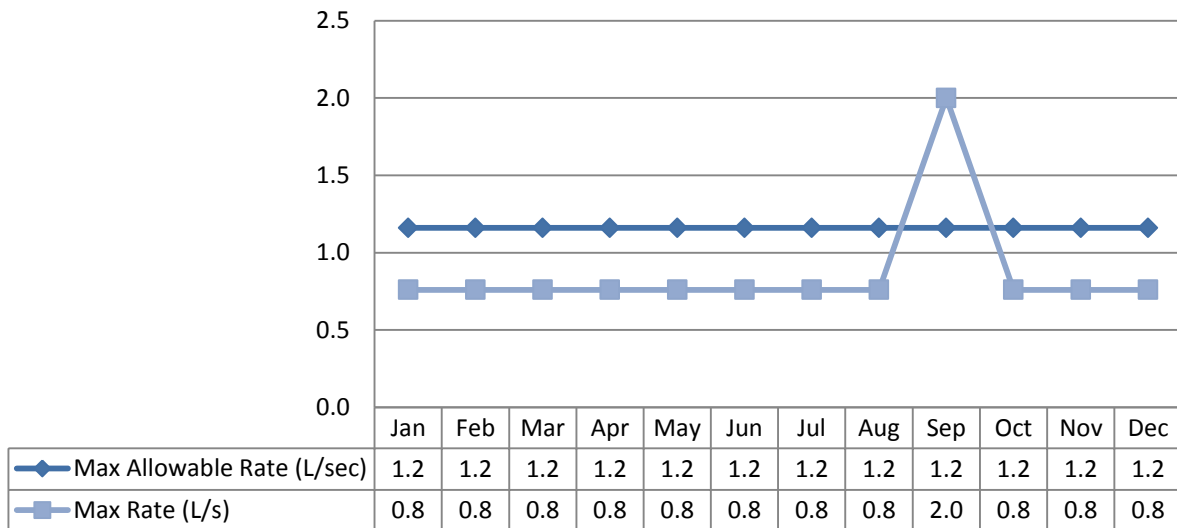
Note: The above table shows there were exceedances in instantaneous peak flow rate (L/s). The significant spike in September was due to scheduled Flow Meter calibration.

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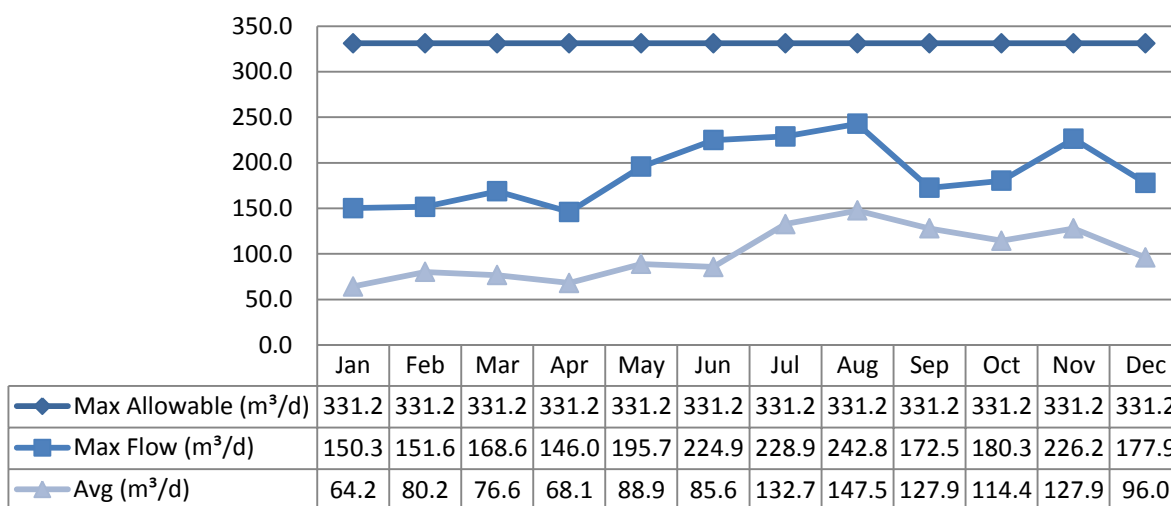
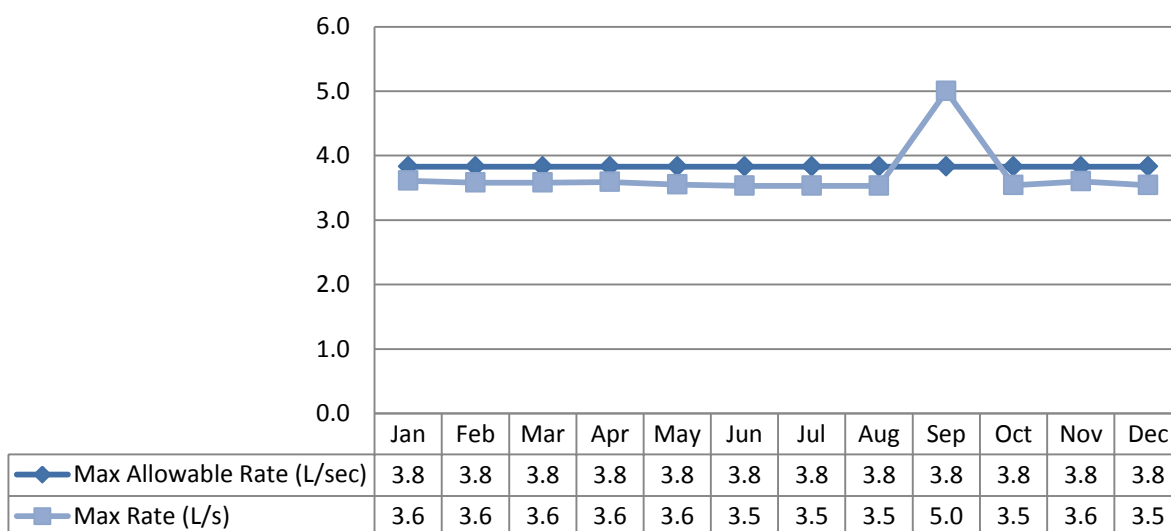
Total Monthly Flows (m³/d)
Max Allowable PTTW- Well #3



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



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

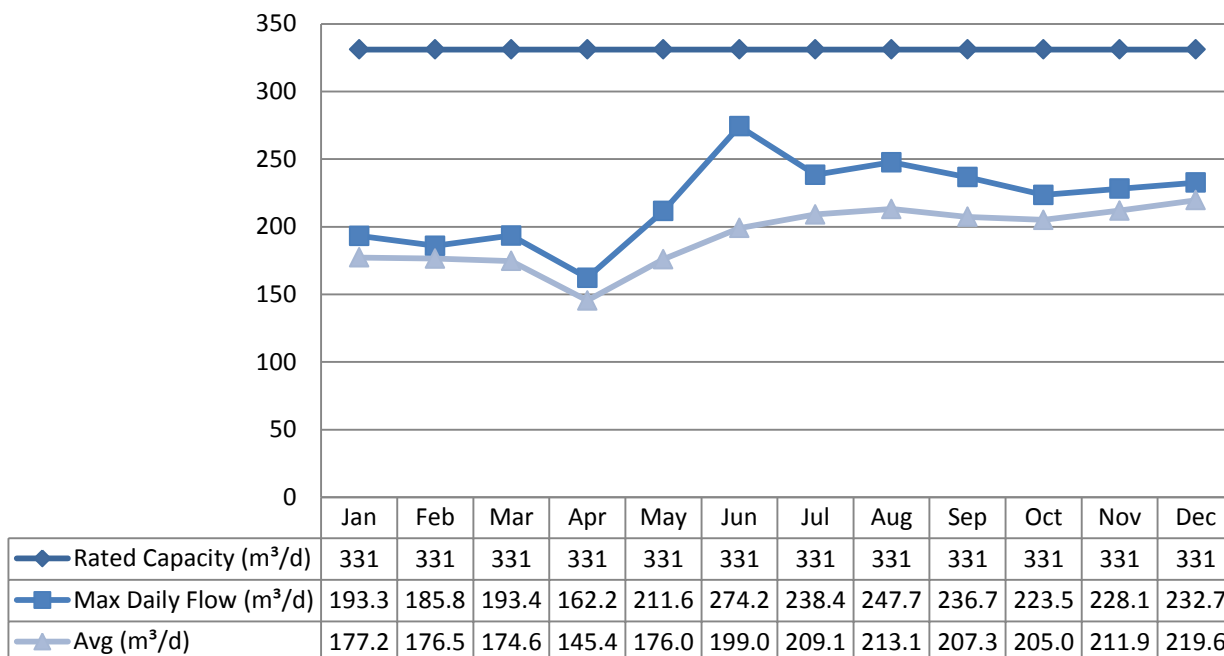
Note: The above table shows there were exceedances in instantaneous peak flow rate (L/s). The significant spike in September was due to scheduled Flow Meter calibration.

Treated Water Flows

The Treated Water flows are regulated under the Municipal Licence.

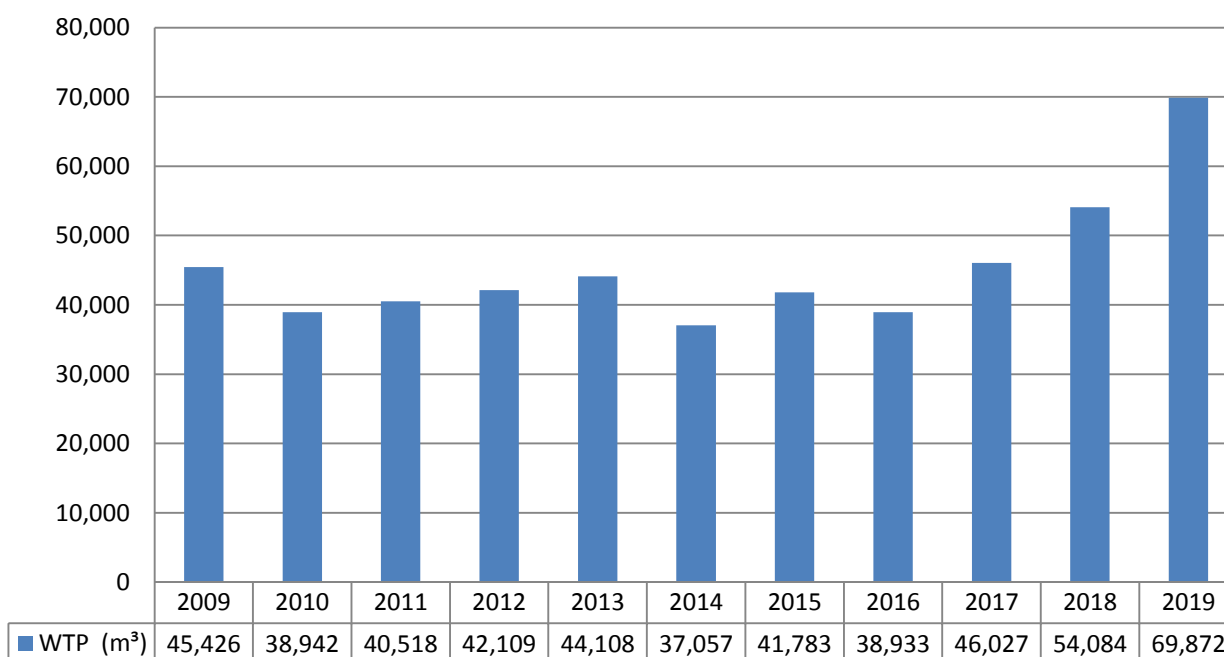
Monthly Rated Flows

Rated Capacity - MDWL



Annual Total Flow Comparison

Total Annual m³



Regulatory Sample Results Summary

Microbiological Testing

Location	No. of Samples Collected	Range of E.coli Results (MIN)	Range of E.coli Results (MAX)	Range of Total Coliform Results (MIN)	Range of Total Coliform Results (MAX)	Range of HPC Results (MIN)	Range of HPC Results (MAX)
Raw Well 1	56	0	0	0	1		
Raw Well 2	55	0	0	0	520		
Raw Well 3	56	0	0	0	2		
Raw Well 7	53	0	0	0	0		
Treated	53	0	0	0	0	0	1
Distribution	160	0	0	0	0	0	2

Operational Testing

Location	No. of Samples	Range of Results (MIN)	Range of Results (MAX)
Turbidity Well 1 (NTU)	12	0.06	0.24
Turbidity Well 2 (NTU)	12	0.06	0.18
Turbidity Well 3 (NTU)	12	0.05	0.11
Turbidity Well 7 (NTU)	12	0.05	0.12
Chlorine	8760	0	2.15
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.

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

Parameter	Sample date (yyyy/mm/dd)	Sample Result	MAC	No. of Exceedances (MAC)	No. of Exceedances (1/2 MAC)
Treated					
Antimony: Sb (ug/L)	2017/01/10	<MDL 0.02	6.0	No	No
Arsenic: As (ug/L)	2017/01/10	<MDL 0.2	10.0	No	No
Barium: Ba (ug/L)	2017/01/10	112.0	1000.0	No	No
Boron: B (ug/L)	2017/01/10	25.0	5000.0	No	No
Cadmium: Cd (ug/L)	2017/01/10	<MDL 0.003	5.0	No	No
Chromium: Cr (ug/L)	2017/01/10	0.64	50.0	No	No
Mercury: Hg (ug/L)	2017/01/10	<MDL 0.01	1.0	No	No
Selenium: Se (ug/L)	2017/01/10	0.58	50.0	No	No
Uranium: U (ug/L)	2017/01/10	0.263	20.0	No	No
Additional Inorganics					
Fluoride (mg/L)	2018/01/09	0.06	1.5	No	No
Nitrite (mg/L)	2019/01/07	<MDL 0.003	1.0	No	No
Nitrite (mg/L)	2019/04/01	<MDL 0.003	1.0	No	No
Nitrite (mg/L)	2019/07/08	<MDL 0.003	1.0	No	No
Nitrite (mg/L)	2019/10/07	<MDL 0.003	1.0	No	No
Nitrate (mg/L)	2019/01/07	5.1	10.0	No	Yes
Nitrate (mg/L)	2019/04/01	5.15	10.0	No	Yes
Nitrate (mg/L)	2019/07/08	4.39	10.0	No	No
Nitrate (mg/L)	2019/10/07	4.97	10.0	No	No
Sodium: Na (mg/L)	2019/01/07	31.3	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 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	No. of Sampling Points	No. of Samples	Range of Results (MIN)	Range of Results (MAX)	MAC (ug/L)	No. of Exceedances
Alkalinity (mg/L)	4	4	234	240	N/A	N/A
pH	4	4	7.54	8.05	N/A	N/A
Lead (ug/l)	N/A	N/A				

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.

Parameter (Treated Water)	Sample Date (yyyy/mm/dd)	Sample Result	MAC	No. of Exceedances (MAC)	No. of Exceedances (MIN)
Alachlor (ug/L) - TW	2017/01/10	<MDL 0.02	5.0	No	No
Atrazine + N-dealkylated metabolites (ug/L)	2017/01/10	<MDL 0.01	5.0	No	No
Azinphos-methyl (ug/L)	2017/01/10	<MDL 0.05	20.0	No	No
Benzene (ug/L)	2017/01/10	<MDL 0.32	1.0	No	No
Benzo(a)pyrene (ug/L)	2017/01/10	<MDL 0.004	0.01	No	No
Bromoxynil (ug/L)	2017/01/10	<MDL 0.33	5.0	No	No
Carbaryl (ug/L)	2017/01/10	<MDL 0.05	90.0	No	No
Carbofuran (ug/L)	2017/01/10	<MDL 0.01	90.0	No	No
Carbon Tetrachloride (ug/L)	2017/01/10	<MDL 0.16	2.0	No	No
Chlorpyrifos (ug/L)	2017/01/10	<MDL 0.02	90.0	No	No
Diazinon (ug/L)	2017/01/10	<MDL 0.02	20.0	No	No
Dicamba (ug/L)	2017/01/10	<MDL 0.2	120.0	No	No
1,2-Dichlorobenzene (ug/L)	2017/01/10	<MDL 0.41	200.0	No	No
1,4-Dichlorobenzene (ug/L)	2017/01/10	<MDL 0.36	5.0	No	No
1,2-Dichloroethane (ug/L)	2017/01/10	<MDL 0.35	5.0	No	No
1,1-Dichloroethylene (ug/L)	2017/01/10	<MDL 0.33	14.0	No	No

Parameter (Treated Water)	Sample Date (yyyy/mm/dd)	Sample Result	MAC	No. of Exceedances (MAC)	No. of Exceedances (MIN)
Dichloromethane (Methylene Chloride) (ug/L)	2017/01/10	<MDL 0.35	50.0	No	No
2,4-Dichlorophenol (ug/L)	2017/01/10	<MDL 0.15	900.0	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L)	2017/01/10	<MDL 0.19	100.0	No	No
Diclofop-methyl (ug/L)	2017/01/10	<MDL 0.4	9.0	No	No
Dimethoate (ug/L)	2017/01/10	<MDL 0.03	20.0	No	No
Diquat (ug/L)	2017/01/10	<MDL 1.0	70.0	No	No
Diuron (ug/L)	2017/01/10	<MDL 0.03	150.0	No	No
Glyphosate (ug/L)	2017/01/10	<MDL 1.0	280.0	No	No
Malathion (ug/L)	2017/01/10	<MDL 0.02	190.0	No	No
Metolachlor (ug/L)	2017/01/10	<MDL 0.01	50.0	No	No
Metribuzin (ug/L)	2017/01/10	<MDL 0.02	80.0	No	No
Monochlorobenzene (Chlorobenzene) (ug/L)	2017/01/10	<MDL 0.3	80.0	No	No
Paraquat (ug/L)	2017/01/10	<MDL 1.0	10.0	No	No
PCB (ug/L)	2017/01/10	<MDL 0.04	3.0	No	No
Pentachlorophenol (ug/L)	2017/01/10	<MDL 0.15	60.0	No	No
Phorate (ug/L)	2017/01/10	<MDL 0.01	2.0	No	No
Picloram (ug/L)	2017/01/10	<MDL 1.0	190.0	No	No
Prometryne (ug/L)	2017/01/10	<MDL 0.03	1.0	No	No
Simazine (ug/L)	2017/01/10	<MDL 0.01	10.0	No	No
Terbufos (ug/L)	2017/01/10	<MDL 0.01	1.0	No	No
Tetrachloroethylene (ug/L)	2017/01/10	<MDL 0.35	10.0	No	No
2,3,4,6- Tetrachlorophenol (ug/L)	2017/01/10	<MDL 0.2	100.0	No	No
Triallate (ug/L)	2017/01/10	<MDL 0.01	230.0	No	No
Trichloroethylene (ug/L)	2017/01/10	<MDL 0.44	5.0	No	No
2,4,6- Trichlorophenol (ug/L)	2017/01/10	<MDL 0.25	5.0	No	No
2-methyl-4- chlorophenoxyacetic acid (MCPA) (ug/L)	2017/01/10	<MDL 0.12	100.0	No	No

Parameter (Treated Water)	Sample Date (yyyy/mm/dd)	Sample Result	MAC	No. of Exceedances (MAC)	No. of Exceedances (MIN)
Trifluralin (ug/L)	2017/01/10	<MDL 0.02	45.0	No	No
Vinyl Chloride (ug/L)	2017/01/10	<MDL 0.17	1.0	No	No
Distribution Water					
Trihalomethane: Total (ug/L) Annual Average	2019	14.75	100	No	No
HAA Total (ug/L) Annual Average	2019	5.3	80	No	No

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

BDL = Below the laboratory detection level

Additional Legislated Samples


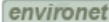

There was no additional sampling required.

Major Maintenance Summary

WO #	Description
1138832	Roof Replacement Control Building

Appendix A

WTRS Data and Submission Confirmation



Ministry of the Environment,
Conservation and Parks

| [WT DATA](#) | [REPORTS](#) | [SEARCH WT DATA](#) | [ADMINISTRATION](#) | [USER PROFILE](#) | [CONTACT US](#) | [HELP](#) | [HOME](#) | [LOGOUT](#) |

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 5, 2020 1:13 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.