Pleasant Point Drinking Water System

2024 Annual Water Report

Drinking Water System Number: 220006525

Drinking Water System Operating Authorities: City of Kawartha Lakes and Ontario Clean Water Agency

Drinking Water System Category: Large Municipal Residential

Reporting Period: January 1 – December 31, 2024

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Annual Drinking Water Report
City of Kawartha Lakes

Kawartha Lakes
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2024 Annual Drinking Water System Summary Report

General Information

The City of Kawartha Lakes prepares a report summarizing system operation and water quality for every municipal drinking water system annually. This report has been prepared to satisfy the annual reporting requirements in O. Reg. 170/03 Section 11 and Schedule 22. The annual reports will be available to residents at the City of Kawartha Lakes Public Works Administration Office by appointment and the City's website. Notification that the 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.

This system does not serve more than 10,000 residences.

Drinking Water System Number: 220006525
Drinking Water System Name: Pleasant Point Drinking Water System
Drinking Water System Owner: City of Kawartha Lakes
Drinking Water System Category: Large Municipal Residential
Reporting Period: January 1, 2024 – December 31, 2024

Compliance Summary

Table 1. Drinking Water Compliance Summary

	Number of Events	Date	Details
Ministry (MECP) Inspections	1	October 18, 2024	Announced Focused Drinking Water Inspection – Final Inspection Rating of 100%
Adverse Water Quality Incidents (AWQIs)	0		
Non-Compliances	0		
Boil Water Advisories	0		
Health and Safety	0		

Drinking Water System Description

The Pleasant Point drinking water system is a large municipal residential drinking water system that serves the community of Pleasant Point, in the City of Kawartha Lakes. The drinking water system is classified as a Class I Water Treatment and Class I Water Distribution subsystem under O. Reg. 128/04.

Source Water

The water supply for the system comes from two groundwater wells: Well #1 and Well #2R. The wells are designated as GUDI (groundwater under the direct influence of surface water).

Water Treatment Facility

The treatment system consists of two (2) cartridge filtration systems, two (2) UV disinfection systems operating in parallel, six (6) pre-charged pressure tanks and a sodium hypochlorite disinfection system for secondary disinfection and monitoring equipment. Chlorine contact is achieved through a 600 mm diameter chlorine contact pipe.

A diesel generator is onsite to provide standby power to the water treatment facility in the event of a power failure.

Distribution System

The distribution system has approximately 2.1 kilometers of watermains and is not rated for fire protection. The watermains in the Pleasant Point Distribution System are all PVC. There is no storage, chlorine boosting, secondary disinfection or pressure boosting capabilities within the control of the distribution system.

Table 2. Treatment Chemicals Used

Chemical Name	Use	Supplier
Sodium Hypochlorite	Disinfection	Jutzi Water Technologies

Summary of Non-Compliance

Adverse Water Quality Incidents

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

Non-Compliance

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

Non-Compliance Identified in a Ministry Inspection

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

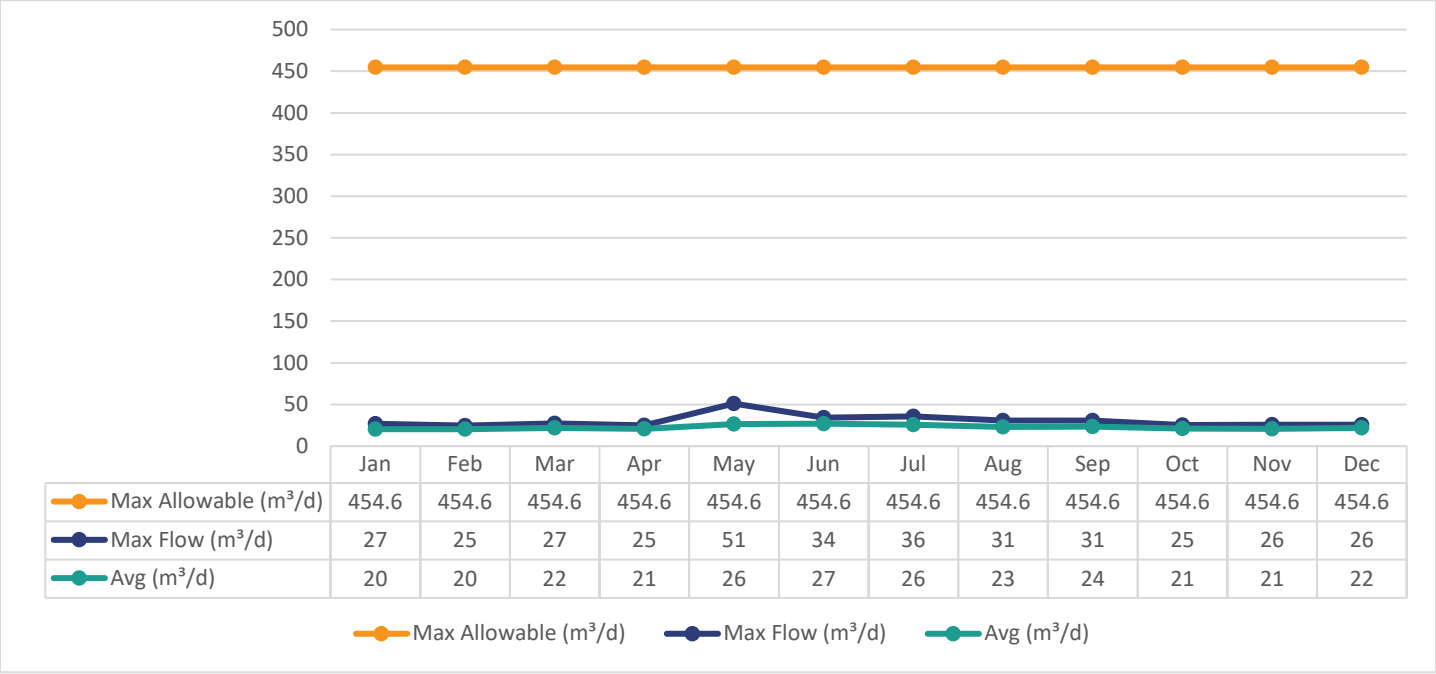
Flows

The Pleasant Point Drinking Water System is operating on average under half the rated capacity. The rated capacity of the system (treated water flows) is 490 m³/day.

Raw Water Flows

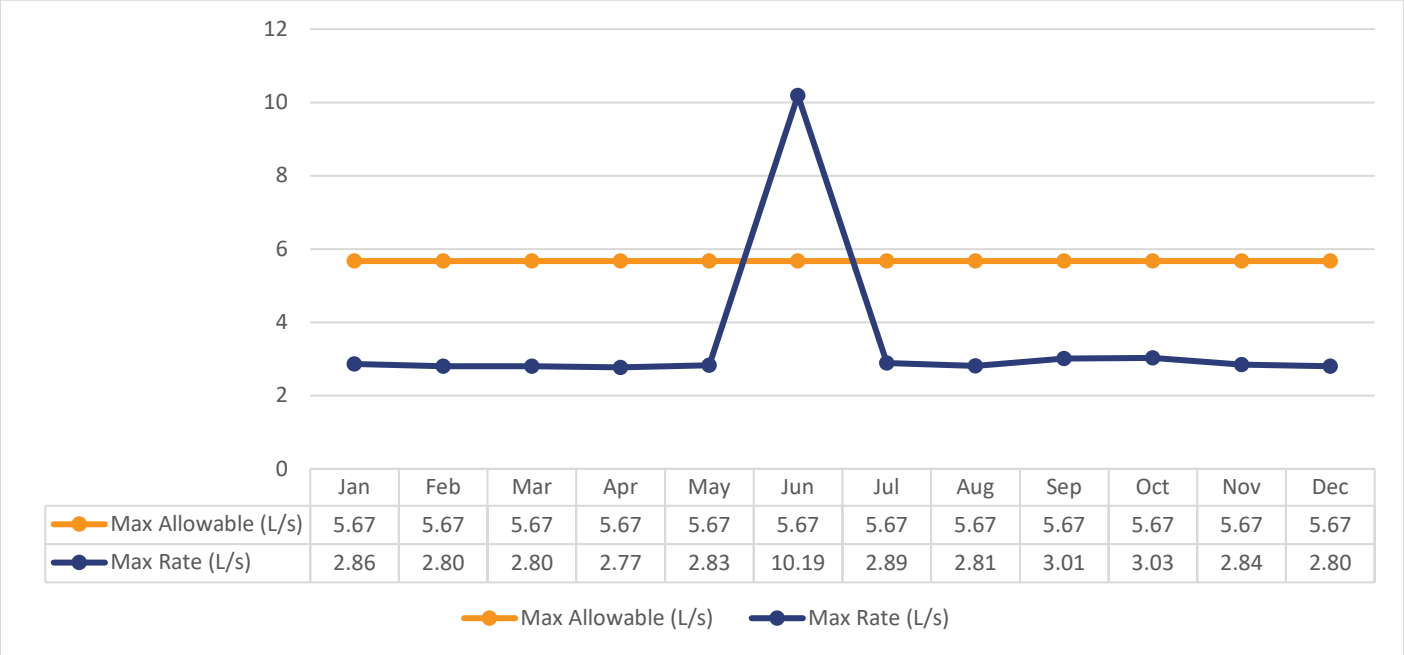
The raw water flows are regulated under the Permit to Take Water. Raw flow data for 2024 was submitted to the Ministry of Environment, Conservation and Parks (MECP) electronically under permit #5087-9ZQJJU. The confirmation of the data that was submitted is attached in Appendix A. The Permit to Take Water compliance criteria is in litres per minute (L/min) but for the purposes of this report the flow rate is reported in litres per second (L/sec) based on industry standard for flow monitoring recording.

Graph 1. Total Monthly Flows (m³/d) – Well #1 (Max Allowable PTTW)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max Allowable (m³/d)	454.6	454.6	454.6	454.6	454.6	454.6	454.6	454.6	454.6	454.6	454.6	454.6
Max Flow (m³/d)	27	25	27	25	51	34	36	31	31	25	26	26
Avg (m³/d)	20	20	22	21	26	27	26	23	24	21	21	22

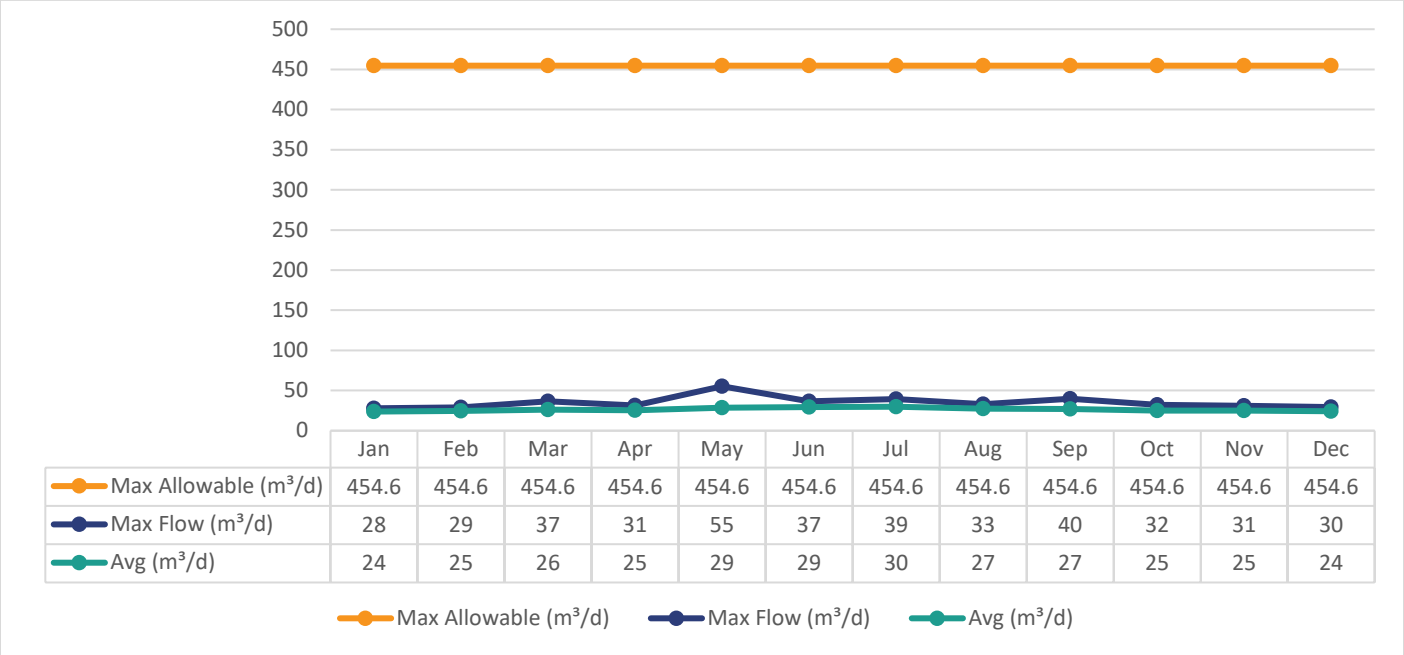
Graph 2. Monthly Rated Flows (L/s) – Well #1 (Max Allowable Rate PTTW)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max Allowable (L/s)	5.67	5.67	5.67	5.67	5.67	5.67	5.67	5.67	5.67	5.67	5.67	5.67
Max Rate (L/s)	2.86	2.80	2.80	2.77	2.83	10.19	2.89	2.81	3.01	3.03	2.84	2.80

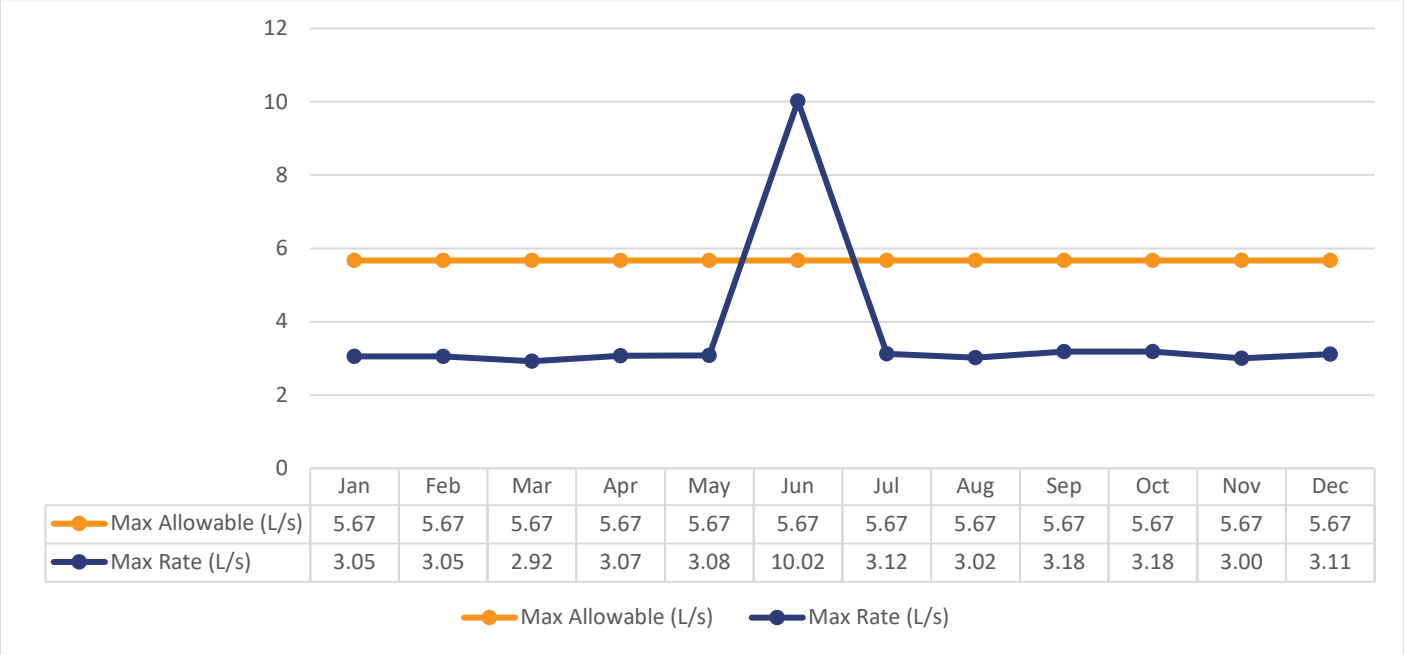
Note: Certain operational circumstances could cause results to be temporarily outside of the allowable rates. In June 2024, the allowable rate was momentarily surpassed as a result of annual calibration of the flow meter and did not indicate a true exceedance. A true exceedance would be documented within this report,

Graph 3. Total Monthly Flows (m³/d) – Well #2R (Max Allowable PTTW)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max Allowable (m³/d)	454.6	454.6	454.6	454.6	454.6	454.6	454.6	454.6	454.6	454.6	454.6	454.6
Max Flow (m³/d)	28	29	37	31	55	37	39	33	40	32	31	30
Avg (m³/d)	24	25	26	25	29	29	30	27	27	25	25	24

Graph 4. Monthly Rated Flows (L/s) – Well #2R (Max Allowable Rate PTTW)



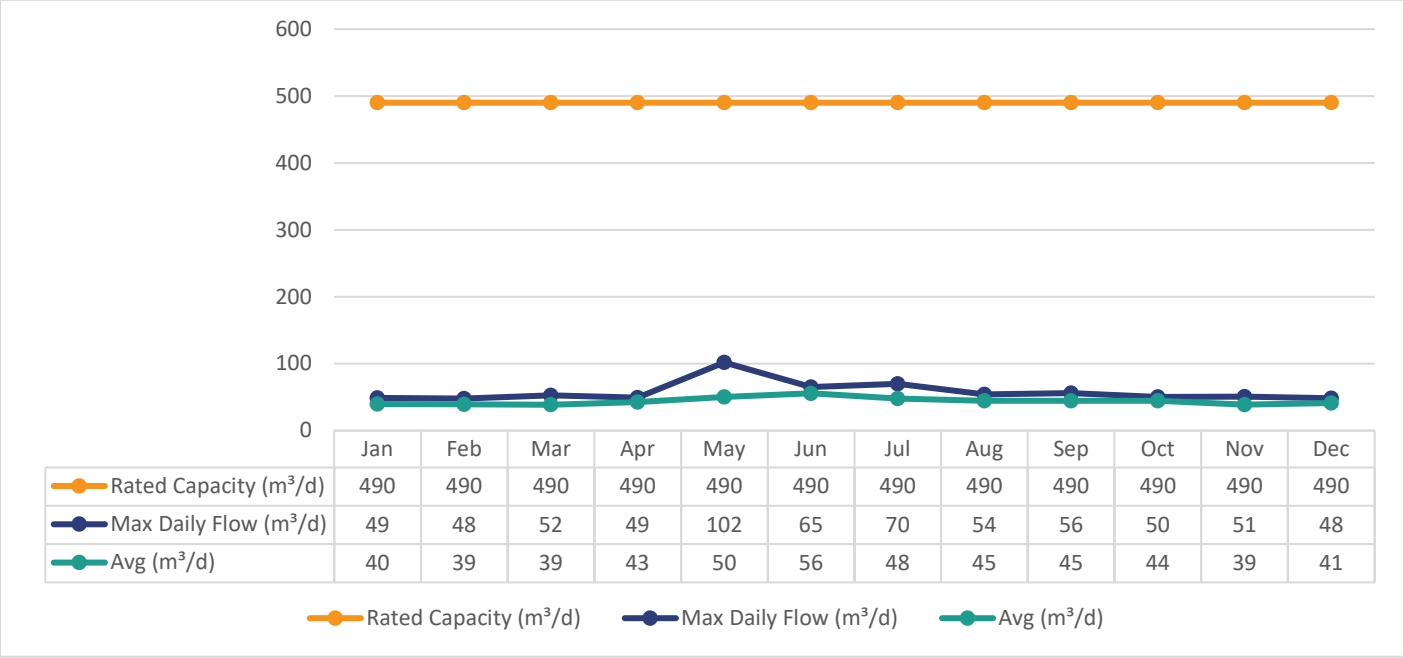
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Max Allowable (L/s)	5.67	5.67	5.67	5.67	5.67	5.67	5.67	5.67	5.67	5.67	5.67	5.67
Max Rate (L/s)	3.05	3.05	2.92	3.07	3.08	10.02	3.12	3.02	3.18	3.18	3.00	3.11

Note: Certain operational circumstances could cause results to be temporarily outside of the allowable rates. In June 2024, the allowable rate was momentarily surpassed as a result of annual calibration of the flow meter and did not indicate a true exceedance. A true exceedance would be documented within this report.

Treated Water Flows

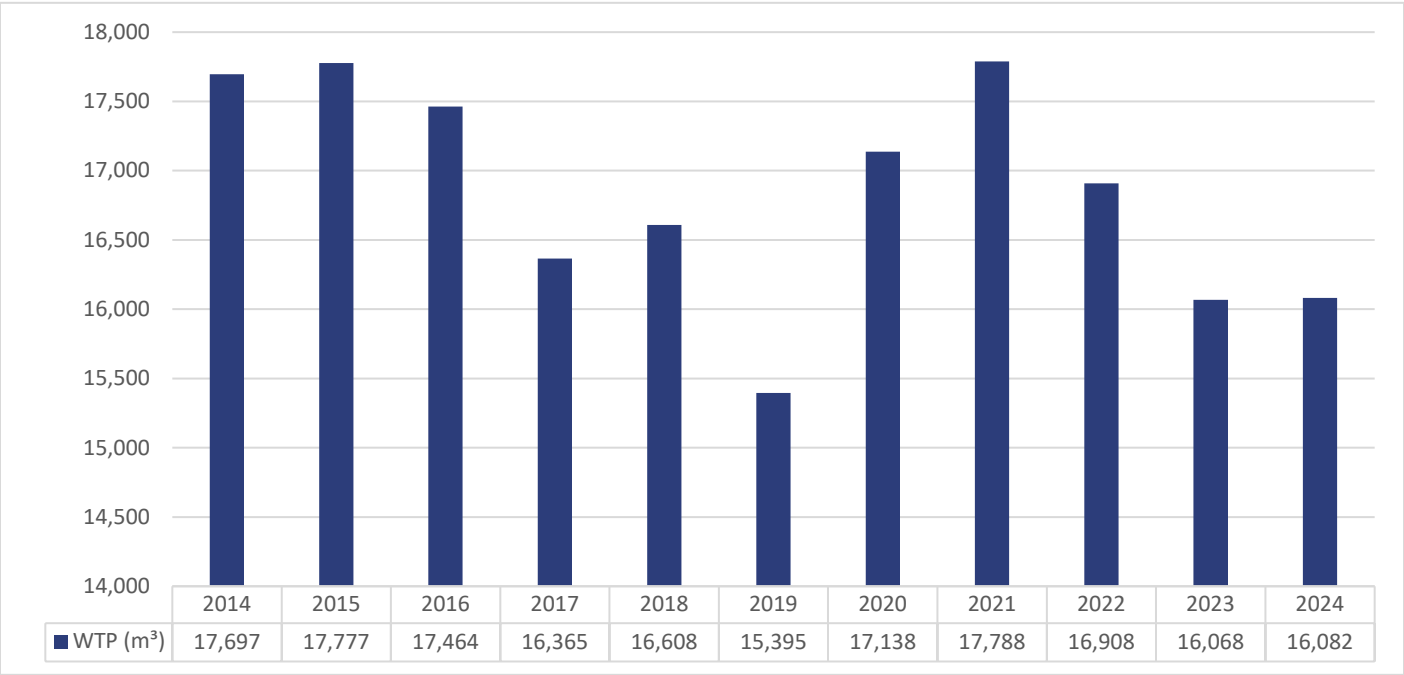
The Treated Water flows are regulated under the Municipal Drinking Water Licence 141-113.

Graph 5. Monthly Rated Flows (m³/d) – Rated Capacity - MDWL



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rated Capacity (m³/d)	490	490	490	490	490	490	490	490	490	490	490	490
Max Daily Flow (m³/d)	49	48	52	49	102	65	70	54	56	50	51	48
Avg (m³/d)	40	39	39	43	50	56	48	45	45	44	39	41

Graph 6. Annual Total Flow Comparison (m³)



	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
WTP (m³)	17,697	17,777	17,464	16,365	16,608	15,395	17,138	17,788	16,908	16,068	16,082

Regulatory Sample Results Summary

Microbiological Testing

Table 3. Microbiological Test Results

	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	0	N/A	N/A
Raw Well 2R	53	0	0	0	0	N/A	N/A
Treated	53	0	0	0	0	0	9
Distribution	163	0	0	0	0	0	8

OG = Overgrowth
HPC = Heterotrophic Plate Count

Operational Testing

Table 4. Operational Test Results

Parameter	Number of Samples Collected	Range of Results Minimum	Range of Results Maximum
Turbidity Well 1 (NTU)	12	0.11	0.62
Turbidity Well 2R (NTU)	12	0.08	0.37
Turbidity – TW (NTU)	8760	0.00	1.01
Chlorine	8760	0.18	4.98
Fluoride (If the DWS provides fluoridation)	N/A	N/A	N/A

Note: Record the unit of measurement if it is **not** milligrams per litre.
Note: For continuous monitors 8760 is used as the number of samples. Spikes recorded by online instrumentation were a result of air bubbles and various maintenance/calibration activities. All spikes are reviewed for compliance with O. Reg. 170/03, any true exceedance would be documented in this report.

Inorganic Parameters

These parameters are tested as a requirement under O. Reg. 170/03. Sodium and Fluoride are required to be tested every five years. Nitrate and Nitrate are tested quarterly and the metals are

tested annually as required under O. Reg. 170/03. In the event any of the parameters listed in Schedule 23 or 24 of O. Reg. 170/03 exceed half of the maximum allowable concentration the parameter is required to be samples quarterly. Based on the latest test results no additional testing is required.

Table 5. Inorganic Parameters Test Results

	Sample Date (yyyy/mm/dd)	Sample Result	Unit of Measure	MAC	Exceedance
Treated Water					
Antimony	2024 01 03	<MDL 0.6	µg/L	6.0	No
Arsenic	2024 01 03	<MDL 0.2	µg/L	10.0	No
Barium	2024 01 03	63.4	µg/L	1000.0	No
Boron	2024 01 03	8.0	µg/L	5000.0	No
Cadmium	2024 01 03	<MDL 0.003	µg/L	5.0	No
Chromium	2024 01 03	0.38	µg/L	50.0	No
Mercury	2024 01 03	<MDL 0.01	µg/L	1.0	No
Selenium	2024 01 03	0.20	µg/L	50.0	No
Uranium	2024 01 03	1.15	µg/L	20.0	No
Additional Organics					
Fluoride	2023 01 03	<MDL 0.06	mg/L	1.5	No
Nitrite	2024 01 02	<MDL 0.003	mg/L	1.0	No
Nitrite	2024 04 02	<MDL 0.003	mg/L	1.0	No
Nitrite	2024 07 02	<MDL 0.003	mg/L	1.0	No
Nitrite	2024 10 07	<MDL 0.003	mg/L	1.0	No
Nitrate	2024 01 02	2.12	mg/L	10.0	No
Nitrate	2024 04 02	2.19	mg/L	10.0	No
Nitrate	2024 07 02	1.96	mg/L	10.0	No
Nitrate	2024 10 07	1.62	mg/L	10.0	No
Sodium	2023 01 03	16.2	mg/L	20*	No

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

*There is no "MAC" for Sodium. The aesthetic objective for sodium in drinking water is 200 mg/L. Sodium results exceeding 20 mg/L are to be reported to the Medical Officer of Health as per Schedule 16-3 (8) of O. Reg. 170/03.

Schedule 15 Sampling (Lead)

The Schedule 15 sampling is required under O. Reg. 170/03. This system is under reduced sampling. Only distribution samples were collected, and no plumbing samples were collected.

Table 6. Schedule 15 Test Results (Lead)

	Number of Sampling Points	Number of Samples	Range of Results Minimum	Range of Results Maximum	MAC (µg/L)	Number of Exceedances
Alkalinity (mg/L)	1	2	249	254	N/A	N/A
pH	1	2	7.27	7.51	N/A	N/A
Lead (µg/L)	N/A	N/A	N/A	N/A	10.0	

Organic Parameters

These parameters are tested as a requirement under O. Reg. 170/03. In the event any of the parameters listed in Schedule 23 or 24 of O. Reg. 170/03 exceed half of the maximum allowable concentration the parameter is required to be samples quarterly. Based on the latest test results no additional testing is required.

Table 7. Organic Parameters Test Results

	Sample Date (yyyy/mm/dd)	Sample Result	Unit of Measure	MAC	Exceedance
Treated Water					
Alachlor	2024 01 03	<MDL 0.02	µg/L	5.0	No
Atrazine + N-dealkylated metabolites	2024 01 03	<MDL 0.01	µg/L	5.0	No
Azinphos-methyl	2024 01 03	<MDL 0.05	µg/L	20.0	No
Benzene	2024 01 03	<MDL 0.32	µg/L	1.0	No
Benzo(a)pyrene	2024 01 03	<MDL 0.004	µg/L	0.01	No
Bromoxynil	2024 01 03	<MDL 0.33	µg/L	5.0	No
Carbaryl	2024 01 03	<MDL 0.01	µg/L	90.0	No
Carbofuran	2024 01 03	<MDL 0.01	µg/L	90.0	No
Carbon Tetrachloride	2024 01 03	<MDL 0.17	µg/L	2.0	No

	Sample Date (yyyy/mm/dd)	Sample Result	Unit of Measure	MAC	Exceedance
Chlorpyrifos	2024 01 03	<MDL 0.02	µg/L	90.0	No
Diazinon	2024 01 03	<MDL0.02	µg/L	20.0	No
Dicamba	2024 01 03	<MDL 0.2	µg/L	120.0	No
1,2-Dichlorobenzene	2024 01 03	<MDL 0.41	µg/L	200.0	No
1,4-Dichlorobenzene	2024 01 03	<MDL 0.36	µg/L	5.0	No
1,2-Dichloroethane	2024 01 03	<MDL 0.35	µg/L	5.0	No
1,1-Dichloroethylene	2024 01 03	<MDL 0.33	µg/L	14.0	No
Dichloromethane (Methylene Chloride)	2024 01 03	<MDL0.35	µg/L	50.0	No
2,4-Dichlorophenol	2024 01 03	<MDL 0.15	µg/L	900.0	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	2024 01 03	<MDL 0.19	µg/L	100.0	No
Diclofop-methyl	2024 01 03	<MDL 0.4	µg/L	9.0	No
Dimethoate	2024 01 03	<MDL 0.06	µg/L	20.0	No
Diquat	2024 01 03	<MDL 1.0	µg/L	70.0	No
Diuron	2024 01 03	<MDL 0.03	µg/L	150.0	No
Glyphosate	2024 01 03	<MDL 1.0	µg/L	280.0	No
Malathion	2024 01 03	<MDL 0.02	µg/L	190.0	No
2-Methyl-4chlorophenoxyacetic Acid (MCPA)	2024 01 03	<MDL 0.12	µg/L	100.0	No
Metolachlor	2024 01 03	<MDL 0.01	µg/L	50.0	No
Metribuzin	2024 01 03	<MDL 0.02	µg/L	80.0	No
Monochlorobenzene (Chlorobenzene)	2024 01 03	<MDL 0.3	µg/L	80.0	No
Paraquat	2024 01 03	<MDL 1.0	µg/L	10.0	No
PCB	2024 01 03	<MDL 0.04	µg/L	3.0	No
Pentachlorophenol	2024 01 03	<MDL 0.15	µg/L	60.0	No
Phorate	2024 01 03	<MDL 0.01	µg/L	2.0	No
Picloram	2024 01 03	<MDL 1.0	µg/L	190.0	No
Prometryne	2024 01 03	<MDL 0.03	µg/L	1.0	No
Simazine	2024 01 03	<MDL 0.01	µg/L	10.0	No
Terbufos	2024 01 03	<MDL 0.01	µg/L	1.0	No
Tetrachloroethylene	2024 01 03	<MDL 0.35	µg/L	10.0	No
2,3,4,6-Tetrachlorophenol	2024 01 03	<MDL 0.2	µg/L	100.0	No
Triallate	2024 01 03	<MDL 0.01	µg/L	230.0	No
Trichloroethylene	2024 01 03	<MDL 0.44	µg/L	5.0	No
2,4,6-Trichlorophenol	2024 01 03	<MDL0.25	µg/L	5.0	No
Trifluralin	2024 01 03	<MDL 0.02	µg/L	45.0	No
Vinyl Chloride	2024 01 03	<MDL 0.17	µg/L	1.0	No
Distribution Water					

	Sample Date (yyyy/mm/dd)	Sample Result	Unit of Measure	MAC	Exceedance
Trihalomethane Total Annual Average Q1	2024 01 08	9.13	µg/L	100.0	No
Trihalomethane Total Annual Average Q2	2024 04 02	9.25	µg/L	100.0	No
Trihalomethane Total Annual Average Q3	2024 07 02	11.03	µg/L	100.0	No
Trihalomethane Total Annual Average Q4	2024 10 07	10.28	µg/L	100.0	No
HAA Total Annual Average Q1	2024 01 08	<MDL 5.3	µg/L	80.0	No
HAA Total Annual Average Q2	2024 04 02	<MDL 5.3	µg/L	80.0	No
HAA Total Annual Average Q3	2024 07 02	<MDL 5.3	µg/L	80.0	No
HAA Total Annual Average Q4	2024 10 07	<MDL 5.3	µg/L	80.0	No

MAC = Maximum Allowable Concentration as O. Reg. 169/03
MDL = Method Detection Limit

Additional Legislated Samples

There were no additional legislated samples required to report during this reporting period.

Minor Maintenance

- Eyewash installation
- Hot water tap to sink installed
- Chlorine pump #1 diaphragm replacement
- UV 2 wiper seized repair

Major Maintenance Expense (above $10,000)

Under Section 11 of O. Reg. 170/03, a description of any major expenses incurred during this reporting period to install, repair or replace required equipment must be included in the annual report. The details of the major expenses for this drinking water system are as follows:

- Pleasant Point Water Distribution – Watermain Swabbing - $16,138

APPENDIX A

WTR Submission Confirmation