



Annual and Summary Report for The Kapuskasing Drinking Water System

Reporting Period:
January 1, 2025 to December 31, 2025

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Statement:

This report has been prepared in accordance with Ontario Regulation 170/03 and the Safe Drinking Water Act, 2002.

All efforts have been made to ensure the information presented in this report is accurate. If you have any questions or comments related to this report, please contact the Kapuskasing Water Treatment Plant at 705 337-4467 between 7am and 3pm.

A hard copy of the Annual and Summary Report will be made available for viewing free of charge on the Official Kapuskasing website at www.kapuskasing.ca.

QUALITY MANAGEMENT SYSTEM POLICY

QUALITY MANAGEMENT SYSTEM POLICY

The Corporation of the Town of Kapuskasing is the Owner and Operating Authority of the Kapuskasing Drinking Water System and is committed to:

- providing safe drinking water to consumers
- complying with all applicable drinking water legislation and regulations
- maintaining and continually improving the Drinking Water Quality Management System

Supplying safe drinking water is essential. All personnel whose duties may affect drinking water quality share responsibility for implementing, maintaining, and contributing to the continual improvement of the Quality Management System.

Endorsed by council March 2026

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SECTION 1: GENERAL INFORMATION

This report summarizes the performance, compliance, and operations of the Kapuskasing Drinking Water System for the year 2025. The delivery of safe drinking water in Ontario is regulated by the Ministry of Environment, Conservation and Parks (MECP) under the Safe Drinking Water Act and Ontario Regulation 170/03, which has been in effect since June 1, 2003. These requirements mandate the preparation of both an Annual Report and a Summary Report. For efficiency, these reports have been combined into a single document for Council's consideration and approval.

The Annual Report provides operational and water quality information, while the Summary Report highlights compliance status, system capacity, and water usage trends.

The Annual Report must be completed by February 28th of each year and include:

- A brief description of the drinking water system
- A list of water treatment chemicals used
- A description of any major expenses incurred to install, repair, or replace equipment
- A summary of the most recent water test results
- A summary of adverse test results and other issues reported to the Ministry including corrective actions

This Summary Report must be presented and accepted by council by March 31st of each year and include:

- Any unmet requirements of the Safe Drinking Water Act, regulations, system approvals, Drinking Water Works Permit (DWWP), Municipal Drinking Water License (MDWL), or orders during the reporting period, specifying the duration and corrective measures taken.
- A summary of water quantities and flow rates supplied during the period covered by this report, including monthly averages and maximum daily flows.
- A comparison of this information to the rated capacity and flow rates approved in the system's approval, Drinking Water Works Permit (DWWP) and Municipal Drinking Water License (MDW)

SECTION 2: ANNUAL REPORT - DRINKING WATER SYSTEM REGULATION O. REG 170/03 SECTION 11

2.1 Drinking Water System Description

This section provides key identification details and an overview of how the drinking water system operates.

System Identification

Drinking Water System Name:	KapusKasing Drinking Water System
Drinking Water System Number:	220002583
Drinking Water System Owner and Operating Authority:	Corporation of the Town of Kapuskasing
Drinking Water System Category:	Large Municipal Residential
Drinking Water System Classification:	Water Treatment Subsystem Class 3 Water Distribution Subsystem Class 1

Approvals and Licences

Municipal Drinking Water License:	License Number: 213-101 Issue Number: 4 Issue Date: July 20, 2021 Expiry Date: July 19, 2026 Application Renewal Date: January 20, 2026
Drinking Water Works Permit:	Permit Number: 213-201 Issue Number: 4 Issue Date: July 20, 2021 Expiry Date: July 19, 2026
Permit to Take Water Number:	Permit Number: 3560-C5KRQC Issue Date: August 5, 2021 Expiry Date: August 5, 2031

The Town of Kapuskasing owns and operates the Kapuskasing Water Treatment Plant and distribution system. The drinking water supply is groundwater from three municipal wells located along Clear Lake Road, south of Highway 11. Treatment is provided using a hydrated lime softening process, in service since 2006, in which hydrated lime and activated silica are added to raise pH and promote precipitation of calcium and magnesium hardness, as well as iron and manganese. Carbon dioxide is then introduced to lower the pH to normal operating levels, followed by filtration through dual media gravity filters to remove remaining suspended particles. Primary disinfection is achieved using sodium hypochlorite, with aqueous ammonia subsequently added to form chloramines, converting free chlorine to combined chlorine and maintaining a stable disinfectant residual throughout the distribution system.

Water storage and distribution

Treated water is pumped through an 18-inch transmission main to an elevated water tower with a storage capacity of 4,560 cubic meters (1,003,000 gallons), which provides sufficient storage to meet peak demand and fire flow requirements. The distribution system consists of approximately 65 kilometers of watermains ranging in diameter from 100 millimeters to 450 millimeters, approximately 900 valves, and 338 fire hydrants.

Emergency preparedness

Emergency diesel generators located at the water treatment plant and at Well No. 1 ensure continued operation of the drinking water system during power outages.

2.2 Water Treatment Chemical Used

Chemical	Purpose
Hydrated lime	Primary softening and precipitation
Lime clear	Process aid for lime softening
Activated silica	Coagulant aid
Carbon dioxide	Recarbonation and pH adjustment
Sodium hypochlorite	Primary disinfection
Aqueous ammonia	Secondary disinfection and chloramination

All chemicals used meet applicable AWWA and NSF standards.

2.3 Major Expenses Incurred to Install, Repair or Replace Equipment

Major repairs and upgrades completed during the reporting period are outlined below, along with a summary of larger-scale routine maintenance activities.

Water Treatment Plant Expenditures

• Empty lime silo	\$14 068.50
• Purchase and install data loggers at water treatment plant and water tower	\$ 5 630.00
• Replace lime gearbox and mixer and rebuild spare	\$ 5 556.27
• Replace clarifier turbidimeter controller	\$ 5 459.00
• Replace post-recarbonation pH sensor	\$ 1 651.00

Treatment Plant Operational and Preventative Maintenance

The following routine maintenance and operational activities were completed:

- Cleaned clarifier #1
- Cleaned recarbonation (CO₂) tank
- Cleaned hydrated lime batch tank
- Cleaned both backwash tanks
- Cleaned filter effluent tanks

Distribution System Expenditures

• Purchase of 12 smart meters and 2 meter heads	\$ 7 323.00
• Replacement of 464 m of 150 mm watermain, 26 residential services (25 mm), and 2 fire hydrants on Oak and Birch Streets	\$393, 400.00

Watermain Break Repairs

A total of ten watermain breaks were repaired during the reporting period.

Date	Location	Pipe Diameter
March 27, 2025	1 Oak Street	150 mm
April 16, 2025	McPherson Avenue	150 mm
May 3, 2025	18 Balsam Street	150 mm
August 2, 2025	Richmond at Government	150 mm
August 5, 2025	430 Government Road East	450 mm
September 18, 2025	Dominion at Montgomery	200 mm
September 24, 2025	Clark at Seaborne	150 mm
October 10, 2025	Ash at Brunetville	450 mm
October 10, 2025	Erie Street	150 mm
November 20, 2025	11 Marquette Street	150 mm

Other Work Done in Distribution

- Exercise 46 valves
- Flushed 170 hydrants as part of the flushing program
- Flushed dead ends on 20 occasions
- Repaired 4 hydrants
- Replaced 1 hydrant
- Winterized 338 hydrants
- 376 water and sewer locates
- 45 surface repairs
- Installed 25 new smart meters
- Repair 1 ½ service line at Hydro One twice (November 18 and November 20, 2025)
- Repair 1 ½ service line at 36 Riverside Drive February 18, 2025
- Repair ¾ service line on Mc Pherson Ave on May 26, 2025
- Repair ¾ service line at 57 Bowman on May 28, 2025

2.4 Adverse Quality Reports and Exceedances

The drinking water regulations define specific “Indicators of Adverse Water Quality” that require immediate notification to the Medical Officer of Health (Health Unit) and the Spills Action Centre (SAC) of the Ministry of the Environment, Conservation and Parks (MECP). These indicators include any treated or distributed water test results that do not meet provincial water quality standards, as well as situations where disinfection may be compromised. In 2025, the Kapuskasing Drinking Water System met all applicable provincial water quality standards, and there were no incidents in which disinfection of the drinking water was compromised.

2.5 Water Sampling and Testing

Microbiological sampling and testing

At least one bacteriological sample is collected weekly from each well, one from treated water at the treatment plant, and five from the distribution system. In the distribution system, a minimum of eight samples per month is required, with additional samples based on population served and at least one sample taken each week.

Any E. coli or total coliform results greater than zero in treated or distribution samples must be reported to the Ministry of the Environment, Conservation and Parks (MECP) and the Medical Officer of Health. When required, resampling and corrective actions are completed as quickly as possible.

Heterotrophic Plate Count (HPC) testing is also conducted on treated and distribution water. One treated water sample is tested weekly, and HPC analysis is completed on 25 percent of distribution bacteriological samples. HPC results above 500 colonies per milliliter may indicate a change in water quality but are not considered a health risk.

Schedule 10 – Weekly Microbiological Testing

Type	Number of Samples	Range of Total Coliform Results (cfu/100mL)		Range E. Coli Results (cfu/100mL)		Number of HPC Samples	HPC Results (cfu/100mL)	
Well # 1 (Raw)	50	0	0	0	0	n/a	n/a	n/a
Well # 2 (Raw)	51	0	0	0	0	n/a	n/a	n/a
Well # 3 (Raw)	51	0	0	0	0	n/a	n/a	n/a
Treated	51	0	0	0	0	51	<10	90
Distribution	255	0	0	0	0	102	<10	40

On November 25, all samples arrived past processing time at the lab (Highway closed Nov 26,27, 28).

On December 23, Well 1 sample arrived at lab frozen, resampled Dec 25 and arrived late due to highway closure therefore not able to process.

Operational sampling and testing

Chlorine residuals are continuously monitored at the waterplant and water tower. 4 grab samples are taken weekly in the distribution system. The analyzer at the water tower is used to satisfy the weekly sampling requirements.

Schedule 6 - Chlorine Residual Testing

Location	Number of Samples	Minimum Value (mg/L)	Maximum Value (mg/L)	Average Value (mg/L)
Free Chlorine - post trim Continuous monitoring	8760	0.42	2.04	1.16
Combined Chlorine - Distribution water tower Continuous monitoring	8760	1.23	2.31	1.66
Combined Chlorine - Distribution Grab samples	260	0.30	1.82	1.31

8760 is used as the number of samples for one year of continuous monitoring.

Clarification: There was a typo in the 2024 Annual and Summary Report. The minimum chlorine residual in the distribution system was shown as 0.21 mg/L, but the correct value is 1.21 mg/L.

Distribution Combined Chlorine Residual (Continuous)	8760	0.21	2.34	1.66
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Chemical sampling and testing

Schedule 13 - Nitrate and Nitrite in the distribution system

Date of sample	Nitrate Result (MAC 10.0 mg/L)	Nitrite Result (MAC 1.0 mg/L)	Exceedance
January 14, 2025	0.1	<0.01	No
April 8, 2025	0.3	<0.0	No
July 8, 2025	0.3	<0.01	No
October 14, 2025	0.2	<0.01	No

Samples are required every 3 months at the water treatment plant.

Schedule 13 - Total Trihalomethane in the distribution system

Date of sample	THM Result (ug/L)	Running Average (MAC 100 ug/L four quarter running average)	Exceedance
January 14, 2025	37.7	36.8	No
April 8, 2025	38.5		
July 8, 2025	37.5		
October 14, 2025	33.5		

samples are required every 3 months from the distribution system.

Schedule 13 – Haloacetic Acids in the distribution system

Date of sample	HAA Result (ug/L)	Running Average (MAC 80 ug/L four quarter running average)	Exceedance
January 14, 2025	29	28.25	No
April 8, 2025	18		
July 8, 2025	35		
October 14, 2025	31		

samples are required every 3 months from the distribution system.

Schedule 13 – Sodium at the Water Treatment Plant

Date of sample	Result (mg/L)	MAC (mg/L)	Exceedance
February 14, 2023	8.16	20	No

Sample is required every 5 years. Next sampling scheduled for February 2028.

Schedule 13 - Fluoride at the Water Treatment Plant

Date of sample	Result (mg/L)	MAC (mg/L)	Exceedance
February 14, 2023	0.13	1.5	No

Samples are required every 5 years. Next sampling scheduled for February 2028.

Treated water sampling and testing

Treated water is tested Monday to Saturday for hardness and alkalinity

Treated Water Parameters

Parameter	Number of Samples Taken	Min-Max values	Average value	Ontario Objective
Hardness	310	44-356*	97	80 to 100 mg/l
Alkalinity	310	56-312	92	30 to 500 mg/l

*Hardness expressed in grains 2.5-20.3 (5.5 average)

Organic and inorganic Parameters

The Maximum Allowable Concentration (MAC) for organic and inorganic parameters are set under the Ontario Drinking Water Standards. If the concentration of a chemical parameter is above half the Maximum Allowable Concentration (MAC), testing frequency would be increased as per regulation.

Schedule 13 & 23 – Inorganic parameters at the Water Treatment Plant

	Parameter	Sample result (ug/L)					MAC	Exceedance
		February 6, 2013	February 9, 2016	February 5, 2019	February 8, 2022	February 11, 2025		
1	Antimony	<0.5	<0.05	<0.05	<0.05	<0.05	6	No
2	Arsenic	<1	<1	<1	<1	<1	10	No
3	Barium	3.8	6.1	5	6	6	1000	No
4	Boron	5.9	10.1	8	6	7	5000	No
5	Cadmium	<0.1	<0.1	<0.01	<0.1	<0.01	5	No
6	Chromium	1.2	1.5	2	<1	1	50	No
7	Mercury	<0.01	<0.01	<0.1	<0.1	<0.1	1	No
8	Selenium	<1	<1	<0.5	<0.2	<0.2	50	No
9	Uranium	<1	<1	1	<1	1.2	20	No

Sample required every 36 months. Next sampling scheduled for February 2028

Schedule 13 & 24 - Organic Parameters at the Water Treatment Plant

	Parameter	Sample results (ug/L)					MAC	Exceedance
		February 6, 2013	February 9, 2016	February 5, 2019	February 8, 2022	February 11, 2025		
1	Alachlor	<0.4	<0.4	<0.223	<0.232	<0.232	5	No
2	Atrazine + N-dealkylated metabolites	<0.9	<0.09	<0.05	<0.5	<0.5	5	No
3	Azinphos-methyl	<0.3	<0.3	<0.168	<0.174	<1.78	20	No
4	Benzene	<0.2	<0.2	<0.1	<0.1	<0.2	1	No
5	Benzo(a)pyrene	<0.009	<0.005	<0.009	<0.009	<0.009	0.01	No
6	Bromoxynil	<0.5	<0.09	<0.0876	<0.115	<0.0854	5	No
7	Carbaryl	<1	<2	<1	<1	<2	90	No
8	Carbofuran	<1	<2	<1	<2	<4	90	No
9	Carbon Tetrachloride	<0.02	<0.2	<0.2	<0.2	<0.2	2	No
10	Chlorpyrifos	<0.03		<0.168	<0.174	<0.178	90	No
11	Diazinon	<0.03	<0.3	<0.168	<0.174	<0.178	20	No
12	Dicamba	<0.02	<0.08	<0.0766	<0.101	<0.0748	120	No
13	1,2-Dichlorobenzene	<0.02	<0.2	<0.3	<0.3	<0.5	200	No
14	1,4-Dichlorobenzene	<0.02	<0.2	<0.3	<0.3	<0.5	5	No
15	1,2-dichloroethane	<0.02	<0.2	<0.2	<0.3	<0.5	5	No
16	1,1-Dichloroethylene (vinylidene chloride)	<0.02	<0.2	<0.3	<0.3	<0.5	14	No
17	Dichloromethane	<5	<1	<1	<1	<5	50	No
18	2,4-Dichlorophenol	<0.5	<0.2	<0.2	<0.2	<0.2	900	No
19	2,4-Dichlorophenoxy acetic acid (2,4-D)	<0.2	<0.08	<0.328	<0.432	<0.32	100	No
20	Diclofop-methyl	<0.2	<0.08	<0.109	<0.144	<0.107	9	No
21	Dimethoate	<0.3	<.03	<0.168	<0.174	<0.178	20	No
22	Diquat	<7	<7	<0.07	<0.2	<0.2	70	No
23	Diuron	<7	<8	<6	<7	<7	150	No
24	Glyphosate	<20	<20	<20	<20	<20	280	No
25	Malathion	<0.3	<0.3	<0.168	<0.174	<0.178	190	No
26	2-Methyl-4- chlorophenoxyacetic acid (MCPA)	-	<0.12	<5.47	<7.2	<5.34	100	No
27	Metolachlor	<0.2	<0.2	<0.112	<0.116	<0.119	50	No

28	Metribuzin	<0.2	<0.2	<0.112	<0.116	<0.019	80	No
29	Monochlorobenzene		<0.2	<0.5	<0.5	<0.5	80	No
30	Paraquat	<1	<1	<0.3	<0.2	<0.2	10	No
31	Pentachlorophenol	<0.5	<0.6	<0.3	<0.3	<0.2	60	No
32	Phorate	<0.3	<0.2	<0.112	<0.116	<0.119	2	No
33	Picloram	<0.5	<0.08	<0.0766	<0.101	<0.0748	190	No
34	Polychlorinated Biphenyls (PCB)	<0.004	<0.12	0.06		<0.05	3	No
35	Prometryne	<0.2	<0.1	<0.0559	<0.058	<0.0594	1	No
36	Simazine	<0.3	<0.3	<0.168	<0.174	<0.178	10	No
37	Terbufos	<0.2	<0.1	0.112	<0.116	<0.0119	1	No
38	Tetrachloroethylene (perchloroethylene)	<0.2	<0.2	<0.3	<0.03	<0.5	10	No
39	2,3,4,6- Tetrachlorophenol	<0.5	<0.6	<0.3	<0.3	<0.2	100	No
40	Triallate	<0.2	<0.2	<0.112	<0.116	<0.119	230	No
41	Trichloroethylene	<0.2	<0.2	<0.2	<0.02	<0.5	5	No
42	2,4,6-Trichlorophenol	<0.5	<0.5	<0.2	<0.2	<0.2	5	No
43	Trifluralin	<0.2	<0.2	<0.112	<0.116	<0.0119	45	No
44	Vinyl Chloride	<0.2	<0.2	<0.1	<0.01	<0.1	1	No

Sample required every 36 months. Next sampling scheduled for February 2028

Lead sampling and testing

Lead sampling is completed under a reduced program based on consistently low lead results.

Schedule 15.1 -Lead in Distribution

Sample Period	Number of Samples	pH Range (2025)	Alkalinity Range (2025)	Lead Range (ug/L) (2024)
December 15 to April 15	3	7.39-7.58	68-74	0.1-0.3
June 15 to October 15	3	7.79-7.91	78-80	<0.1

Next lead sampling scheduled for winter and summer 2027. In 2025 and 2026, sampling is required for pH and alkalinity only.

[Raw water sampling and testing \(source water monitoring\)](#)

Raw Physical & Chemical Parameters

Parameters	Well #1			Well #2			Well #3		
	November 8, 2016 (mg/L)	January 12, 2021 (mg/L)	January 20, 2026 (mg/L)	November 8, 2016 (mg/L)	January 12, 2026 (mg/L)	January 20, 2026 (mg/L)	November 8, 2016 (mg/L)	January 12, 2021 (mg/L)	January 20, 2026 (mg/L)
Alkalinity	221	268	274	171	155	150	230	296	308
Aluminum	<0.001	0.018	0.003	0.0061	0.01	0.01	<0.001	0.001	<0.001
Antimony	<0.0005	<0.0005	<0.0005	0.0009	0.0588	<0.0005	<0.005	<0.005	<0.0005
Arsenic	<0.001	<0.01	<0.0005	<0.001	<0.1	<0.0005	<0.001	<0.001	<0.0005
Barium	0.0792	0.090	0.088	0.0453	0.04	0.036	0.0964	0.121	0.123
Beryllium	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Bismuth	<0.001	<0.001	<0.001	<0.001	0.013	<0.001	<0.001	<0.001	<0.001
Boron	0.15	0.015	0.01	0.0092	<0.02	0.004	0.015	0.016	0.015
Bromide	<0.1	<0.05	<0.05	<0.1	<0.05	<0.05	<0.1	<0.05	<0.05
Cadmium	0.0001	<0.0001	<0.001	0.0001	<0.001	<0.001	<0.0001	<0.0001	<0.001
Calcium	78.8	76	82.7	56.7	46.3	53.2	88.3	90.9	111
Cerium	<0.001	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001
Cesium	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001
Chloride	1.9	2.4	3.0	3.3	2.8	2.9	2.18	4.5	5.9
Chromium	0.001	0.005	0.001	<0.001	<0.01	<0.001	0.001	0.005	<0.001
Cobalt	0.00153	0.0016	0.0017	<0.0001	<0.001	0.0001	<0.0001	0.0002	0.0002
Color (true) (TCU)	3	6	13	60.4	58	50.5	4	6	80
Copper	0.0078	0.004	0.005	0.0034	<0.01	0.003	0.0067	0.003	0.006
Europium	<0.001	<0.001	<0.001	<0.001	0.049	<0.001	<0.001	<0.001	<0.001
Fluoride	0.1	0.15	0.22	<0.1	0.07	0.08	0.2	0.27	0.33
Gallium	0.002	0.002	0.002	<0.001	<0.01	<0.001	0.002	0.002	0.003
Hardness (as CaCO3)	-	-	265	-	-	158	-	-	360
Iron	0.170	0.42	0.284	0.0473	0.6	0.470	1.720	2.5	2.36
Lanthanum	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Lead	0.0001	<0.0001	0.0002	<0.0001	<0.05	0.0002	<0.001	<0.0001	<0.0001
Lithium	<0.005	<0.005	<0.002	0.005	6.53	<0.002	<0.005	0.006	<0.002
Magnesium	14.6	15.400	14.1	7.87	0.13	6.15	18.3	16.700	20.2
Manganese	0.025	0.297	0.321	0.122	<0.001	0.123	0.0771	0.085	0.105
Mercury	<0.0001	<0.0001	<0.001	<0.0001	<0.1	<0.001	<0.0001	<0.0001	<0.001
Molybdenum	0.001	0.001	0.003	0.001	<0.1	<0.001	<0.001	<0.001	<0.001

Parameters	Well #1			Well #2			Well #3		
	November 8, 2016 (mg/L)	January 12, 2021 (mg/L)	January 20, 2026 (mg/L)	November 8, 2016 (mg/L)	January 12, 2026 (mg/L)	January 20, 2026 (mg/L)	November 8, 2016 (mg/L)	January 12, 2021 (mg/L)	January 20, 2026 (mg/L)
Nickel	0.0033	0.004	0.003	0.001	<0.01	0.002	0.002	0.004	0.003
Niobium	0.001	<0.001	<0.001	<0.001	0.044	<0.001	<0.001	<0.001	<0.001
Nitrate as N	<0.1	<0.05	<0.05	<0.01	<0.05	<0.05	<0.01	<0.05	<0.05
Nitrite as N	<0.03	<0.05	<0.05	<0.03	<0.05	<0.05	<0.03	<0.05	<0.05
pH (pH unit)	7.61	7.06	7.43	7.81	7.3	7.88	7.58	7.42	7.66
Phosphorus	<0.050	<0.05	<0.05	0.050	<0.05	<0.05	0.050	<0.05	<0.05
Potassium	4.6	4.5	4.67	3.290	3	2.35	4.710	4.2	5.17
Rubidium	0.0032	0.003	0.003	0.0032	<0.01	0.003	0.0046	0.005	0.006
Scandium	0.001	0.001	0.002	0.001	<0.01	0.001	0.002	0.003	0.003
Selenium	<0.001	<0.0005	<0.0002	<0.001	<0.005	<0.0002	<0.001	<0.0005	<0.0002
Silicon	4.7	5.2		3.800	<6		7.070	7.5	
Silver	<0.0001	<0.0001	<0.001	<0.0001	0.0453	<0.001	<0.0001	<0.0001	<0.001
Sodium	2.9	3.1	3.46	1.77	2	1.8	4.43	3.7	5.3
Strontium	0.108	0.012	0.112	0.114	0.10	0.078	0.145	0.183	0.0197
Sulphate	16.8	17.3	20.5	1	2.5	3.3	42.6	57.9	59.3
Sulphide	-	-	<0.02	-	-	0.07	-	-	<0.02
Sulfur	6.60	4.8	5.1	<0.8	<0.8	<0.8	16.5	15.9	15.0
Tellurium	<0.001	<0.001		<0.001	0.146		<0.001	<0.001	
Thallium	<0.0001	<0.0001	<0.001	0.0001	0.0106	<0.001	<0.0001	<0.0001	<0.001
Thorium	0.001	<0.001	<0.001	<0.001	0.018	<0.001	<0.001	<0.001	<0.001
Tin	0.001	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001
Titanium	0.001	<0.001	<0.001	0.002	0.01	<0.001	0.001	<0.001	<0.001
Total Dissolved Solids	110	320	290	40	290	180	190	410	390
Tungsten	<0.001	<0.001	<0.001	<0.001	0.211	<0.001	<0.001	<0.001	<0.001
Uranium	0.001	0.002	0.0013	<0.001	0.029	<0.0005	<0.001	<0.001	<0.0005
Vanadium	<0.001	0.001	<0.001	0.0034	<0.01	0.003	<0.001	0.001	<0.001
Yttrium	<0.001	<0.001	<0.001	<0.001	<0.01	<0.001	<0.001	<0.001	<0.001
Zinc	0.008	<0.001	0.009	0.0064	<0.01	0.002	0.0051	<0.001	0.003
Zirconium	<0.001	<0.001	<0.001	0.0077	<0.01	0.013	<0.001	0.001	<0.001

Sample required every 60 months. Next sampling scheduled for February 2031

Raw water is tested weekly for turbidity, color, hardness and alkalinity. The motor at well #2 was out of service from October 28, 2025 to February 9, 2026 and required rewinding and refurbishment to be returned to service.

Well #1 (Raw)

Parameter	Number of Samples Taken	Range of Results	Average Value
Turbidity	51	0.17-1.7 2ntu	0.55
Color	51	0-73 acu	26
Hardness	51	240-274 mg/L	269
Alkalinity	51	236-294 mg/L	271

Well #2 (Raw)

Parameter	Number of Samples Taken	Range of Results	Average Value
Turbidity	42	0.32-2.66 ntu	1.03
Color	42	107-198 acu	132
Hardness	42	162-190 mg/L	177
Alkalinity	42	156-180 mg/L	163

Well #3 (Raw)

Parameter	Number of Samples Taken	min-max values	Average Value
Turbidity	51	0.20-3.13 ntu	1.41
Color	51	8-184 acu	60
Hardness	51	344-390 mg/L	363
Alkalinity	51	286-342 mg/L	304

Environmental discharge sampling and testing

Municipal Drinking Water License (MDWL)

Sample Type	Number of Samples	Minimum	Maximum	Average	MAC
Total suspended solids	12	<0.67	2.7	<1.59	50 mg/L (12-month average)
pH (prior to each discharge)	313	6.89	8.49	7.66	6.5-8.5

SECTION 3: SUMMARY REPORT TO MUNICIPALITIES - DRINKING WATER SYSTEM REGULATION O. REG 170/03 SCHEDULE 22

Requirements the System Failed to Meet

The Ministry of Environment, conservation and Parks (MECP) conducted the routine annual inspection on December 11, 2025. The final inspection report did not identify any non-compliances. The system received 0 out of 595 noncompliance risk rating for a final inspection rating was 100%.

Summary of Quantities and Flow Rates

	Raw				Treated		
	Average Daily Volume (m3/day)	Max Daily Volume (m3/day)	Peak Flow Rate (L/sec)	Total Monthly Flow (m3/month)	Average Daily Volume (m3/day)	Max Daily Volume (m3/day)	Total Monthly Volume (m3/month)
January	2490	2666	40.57	77 344	2415	2671	74 872
February	2516	2641	39.54	70 460	2434	2597	68 158
March	2599	3613	65.73	80 575	2521	3604	78 138
April	2530	2574	40.97	75 913	2461	2629	73 844
May	2747	3170	49.23	85 146	2684	3122	83 219
June	2695	3167	38.63	80 835	2644	2996	79 317
July	2652	3171	49.09	82 219	2586	3096	80 163
August	2663	3768	31.65	82 562	2592	3120	80 355
September	2842	3267	66.57	85 271	2766	3227	82 982
October	2686	5302	66.49	83 276	2641	5276	81 863
November	2561	2623	45.12	76 824	2489	2678	74 675
December	2795	4351	71.97	86 645	2722	4283	84 383
TOTAL	967 070				941 969		

Historical Data

HISTORICAL DATA Year	Raw Total Volume (m3)	Treated Total Volume (m3)	Invoiced Total Volume (m3)	Unaccounted for (m3)	Unaccounted for (%)
2012	1,040,810	999,747	810,208	189,539	19
2013	1,027,084	982,347	785,269	197,078	20
2014	1,119,006	1,072,743	778,466	294,277	27
2015	1,081,126	1,061,591	754,320	307,271	29
2016	1,065,892	1,021,988	753,547	268,441	26
2017	1,054,459	1,001,433	739,757	261,676	26
2018	1,098,923	1,052,229	720,883	331,346	31
2019	1,095,476	1,057,568	730,347	327,221	31
2020	1,127,760	1,089,171	721,863	367,308	34
2021	1,109,323	1,073,365	722,442	350,923	33
2022	1,171,369	1,132,346	766,585	365,761	32
2023	1,210,509	1,185,074	758,296	426,778	36
2024	1,078,225	1,054,615	694 128	360,487	34
2025	967,070	941,969	664,312	277,657	30

*Note that invoiced and unaccounted water volumes for 2025 are estimates, as many water meters customers were billed using estimated readings.

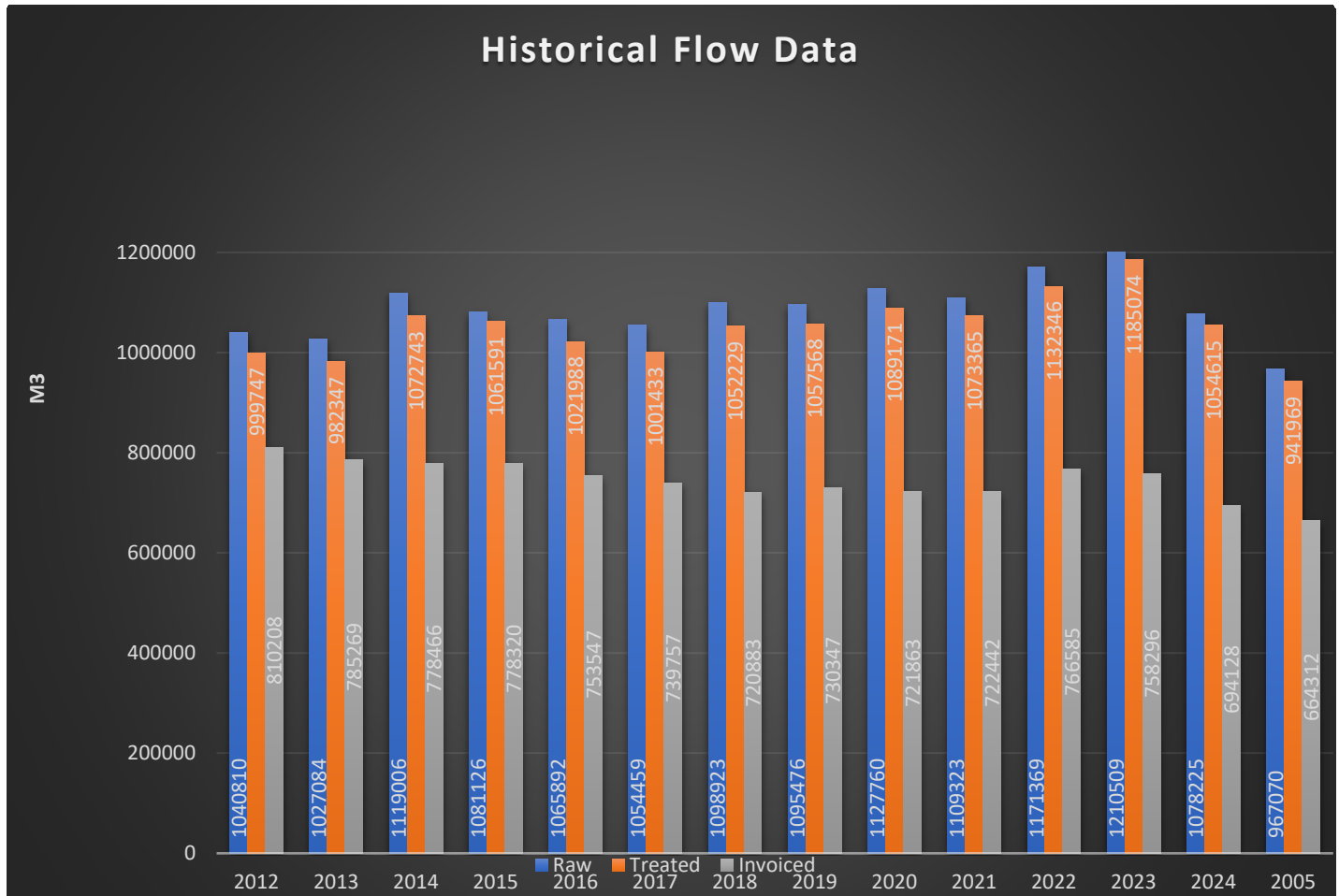
The Kapuskasing Drinking Water System's Permit to Take Water authorizes the town to withdraw water at a maximum flow rate of 2,270 liters per minute, up to a daily maximum of 3,268,800 liters (3,268.8 m³) per well, with a combined maximum withdrawal limit of 6,566,400 liters (6,566.4 m³) per day from all sources.

The highest recorded flow rate in 2025 was 71.97 l/s observed on December 9, 2025 while the maximum daily volume of 5,302 m³ was recorded on October 10, 2025 with two wells operating on both occasions.

In compliance with the Municipal Drinking Water License, the maximum allowable daily flow of treated water from the treatment system to the distribution system (water tower) must not exceed 6,566 m³/day.

The highest single day treated flow in 2025 was 5,276 m³/day, recorded on October 10, 2025 which remains well within the system's permissible limit.

Over the course of 2025, a total of 941,969 m³ of water was treated, representing a 10.7% decrease compared to the previous year.



*Note that invoiced and unaccounted water volumes for 2025 are estimates, as many water meters customers were billed using estimated readings.

SECTION 4: RECOMMENDED INFRASTRUCTURE INSPECTIONS AND MAINTENANCE

This section outlines recommended infrastructure inspections and maintenance activities for future consideration to support system reliability and reduce the risk of unplanned service disruptions.

- **Well 1 rehabilitation**
To maintain performance and long-term raw water supply reliability.
- **Well No. 3 camera inspection**
To assess casing, screen condition, and overall well integrity.
- **Inspection of above-ground tanks**
Structural inspection of clarifiers, the carbon dioxide tank, and the lime silo to determine the extent of corrosion and any required remedial work.
- **Shingle and gutter replacement for roofs**
Replacement of shingles and gutters at the water treatment plant and Well 1
- **Lime sludge lagoon clean-out**
Removal of lime softening residuals from lagoon