Annual Report

Sioux Lookout Urban Drinking Water System

2025

Prepared by **Northern Waterworks Inc.**
on behalf of the **Municipality of Sioux Lookout**

NORTHERN WATERWORKS INC.

SIOUX LOOKOUT
Hub of the North

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1 Introduction

1.1 Annual Reporting Requirements

This consolidated Annual Report (the Report) has been prepared in accordance with both section 11 (Annual Reports) and Schedule 22 (Summary Reports for Municipalities) of Ontario Regulation 170/03 (Drinking Water Systems Regulation). This Report is intended to inform both the public and Municipal Council about the operation of the system over the previous calendar year (January 1 to December 31, 2025).

Section 11 of O. Reg. 170/03 requires the development and distribution to the public of an annual report summarizing water quality monitoring results, adverse water quality incidents, system expenses and chemicals used in the water treatment process. Schedule 22 of O. Reg. 170/03 requires the development and distribution to Council of an annual report summarizing incidents of regulatory non-compliance and associated corrective actions, in addition to providing flow monitoring results for the purpose of enabling the Owner to assess the capability of the system to meet existing and planned demand.

1.2 Report Availability

In accordance with section 11 of O. Reg. 170/03, this Report must be given, without charge, to every person who requests a copy. Effective steps must also be taken to advise users of water from the system that copies of the report are available, without charge, and of how a copy may be obtained. This Annual Report shall be made available for inspection by the public at the Town of Sioux Lookout Municipal Office and on the Municipality's website.

In accordance with Schedule 22 of O. Reg. 170/03, this Annual Report must be given to the members of Municipal Council. Section 19 (Standard of care, municipal drinking-water system) of Ontario's *Safe Drinking Water Act* (SDWA) also places certain responsibilities upon those municipal officials who oversee an accredited operating authority or exercise decision-making authority over a system. The examination of this Report is one of the methods by which municipal officials may fulfil the obligations required by section 19 of the SDWA.

System users and members of Council should contact a representative of NWI for assistance in interpreting this Report. Questions and comments may be directed to the local NWI Operations Manager or by email to compliance@nwi.ca.

2 System Overview & Expenses

2.1 System Description

The Sioux Lookout Urban Drinking Water System must meet extensive treatment and testing requirements to ensure that human health is protected. The operation and maintenance of the system is governed by Ontario's *Safe Drinking Water Act* and the regulations therein, in addition to requirements within system-specific environmental approvals. Important system information is summarized in Table 1.

Table 1: System information

Drinking-Water System Name:	Sioux Lookout Urban Drinking Water System
DWS Number:	220001405
DWS Category:	Large Municipal Residential
DWS Owner:	The Corporation of the Municipality of Sioux Lookout
DWS Operating Authority:	Northern Waterworks Inc.
DWS Components:	• Raw water pumping station • Sioux Lookout Water Treatment Plant • Sioux Lookout water distribution system, including the community standpipe and a booster station
Treatment Processes:	• Chemical coagulation and flocculation • Membrane ultrafiltration • Ultraviolet disinfection (primary disinfection) • Free chlorine disinfection (primary and secondary disinfection) • Fluoridation • pH adjustment

Water production begins as raw water flows by gravity from the intake structure located in Pelican Lake to an underground reservoir located at the raw water pumping station. Pumps then transfer water from the reservoir and through a transmission line to the flocculation tanks at the water treatment plant. At the treatment facility, aluminum sulphate (coagulant) and sodium hydroxide (pH/alkalinity adjustment) are injected and rapidly mixed into the raw water immediately upstream from the flocculation tanks. In the tanks water is gently mixed to promote floc formation, which will in turn facilitate filtration.

Flocculated water is directed to underground process reservoirs containing submerged membrane ultrafilters. Permeate (filtered water) is drawn through the filters using a vacuum generated by pumps, effectively filtering impurities from the water. Permeate is then passed through one of two available UV reactors for disinfection and is injected with sodium hypochlorite (disinfectant), fluorosilicic acid (fluoridation) and sodium hydroxide (pH/alkalinity adjustment) as it is directed to the chlorine contact chamber and reservoir. The disinfected water is held in the contact chamber and reservoir for a sufficient amount of time to achieve free chlorine primary disinfection.

Treated water is delivered from the reservoir to the water distribution system using pumps located at the treatment facility. The Sioux Lookout water distribution system consists of approximately 34 km of water mains, 250 water main gate valves, 172 hydrants, a community standpipe for regulating pressure and providing extra storage, and a booster station serving the northeast portion of the system. Secondary disinfection requirements in the distribution system are achieved by maintaining a free chlorine residual at all locations.

2.2 Water Treatment Chemicals

In accordance with section 11 of O. Reg. 170/03, this Report must include a list of all water treatment chemicals used by the system during the period covered by the report (summarized in Table 2. All chemicals used in the treatment process are NSF/ANSI 60 certified for use in potable water, as required by system approvals.

Table 2: Water treatment chemicals used in 2025	
Treatment Chemical	Application
aluminum sulphate	coagulant
fluorosilicic acid	fluoridation
sodium hydroxide	pH/alkalinity adjustment
sodium hypochlorite[1]	disinfectant, membrane filter cleans
calcium thiosuphate[1]	membrane filter cleans (dechlorination)
citric acid[1]	membrane filter cleans (pH adjustment)
hydrochloric acid[1]	membrane filter cleans (pH adjustment)

1. Cleaning and neutralizing agents used for membrane filter cleans are applied in smaller amounts. These chemicals are not injected into the process water stream.

2.3 System Expenses

In accordance with section 11 of O. Reg. 170/03, this Report must describe any major expenses incurred during the reporting period to install, repair, or replace required equipment. This Report also summarizes those expenses related to strengthening equipment inventories and to maintenance activities undertaken by subcontracted service providers. Major expenses incurred in 2025 are summarized in Table 3.

Table 3: Major expenses incurred in 2025

Category	Description	Expense
Maintenance	Tank liner repairs	$15,328.50
Replacement	VFD replacement & rebuilds for blowers	$61,913.36
Replacement	Replaced Caustic Pumps A&B	$18,720.31
Replacement	Compressor for Process Air	$6628.44
Replacement	Transfer Switch	$15,870
Inventory	Lab Equipment	$1,436.32
Inventory	Analyzer Probes	$2,775.43
Inventory	Chemical Pump Repair Kits	$2,780.42
Replacement	12 UV Bulbs for UV#1	$7,080.42
Maintenance	Remove UV from Delco PLC and add to Sioux	$25,068.85
Replacement	Main WTP UPS	$2,722.65
Replacement	Permeate Pump rebuild	$8,371.03
Maintenance	Reject Pump Rebuild	$9,739.51
Inventory	Reject flow meter	$3,152.19
Replacement	Chlorine probe Standpipe	$2,413.9
Maintenance	Annual Flow meter Verification	$2,001.73
Maintenance	Annual Backflow device testing	$1.539.85
Maintenance	Repair Leaking Flanges on Clearwell piping and process skid	$6,646.00
Inventory	Parts for The UV System	$3,051.57

3 Water Quality

3.1 Overview

Water quality monitoring is conducted to determine and confirm that drinking water delivered to the consumer is safe and aesthetically pleasing. Monitoring is also required to assess compliance with legislation and to control the treatment process. In accordance with section 11 of O. Reg. 170/03, this Report must summarize the results of water quality tests required by regulations, approvals, and orders. The following sections summarize the results of all required water quality tests and compare the results to applicable water quality standards.

3.2 Microbiological Parameters

Microbiological sampling and testing requirements are provided in Schedule 10 (Microbiological sampling and testing) of O. Reg. 170/03. In 2025, a total of 342 source, treated and distribution water samples were collected for microbiological analysis by an accredited laboratory. Samples were collected on a weekly basis and included tests for E. coli (EC), total coliforms (TC) and heterotrophic plate counts (HPC). Results from microbiological analyses are summarized in Table 4.

Table 4: Results summary for microbiological parameters

Sample Type	# of Samples	EC Results Range[1] (MPN/ 100mL)	TC Results Range[1] (MPN/ 100mL)	# of HPC Samples	HPC[2] Results Range (CFU/mL)
Raw Water	53	0 to 9	0 to 1120	---	---
Treated Water	53	absent	absent	53	0 to 7
Distribution	236	absent	absent	106	0 to 23

1. The Ontario Drinking Water Quality Standard for E. Coli and Total Coliforms in a treated or distribution sample is 'not detectable'. The presence of either parameter in a treated or distribution sample is considered an exceedance.
2. HPC results are not an indicator of water safety and, as such, are not used as an indicator of potential adverse human health effects. HPC measurement is a useful operational tool for monitoring general bacteriological water quality throughout the treatment process and in the distribution system.

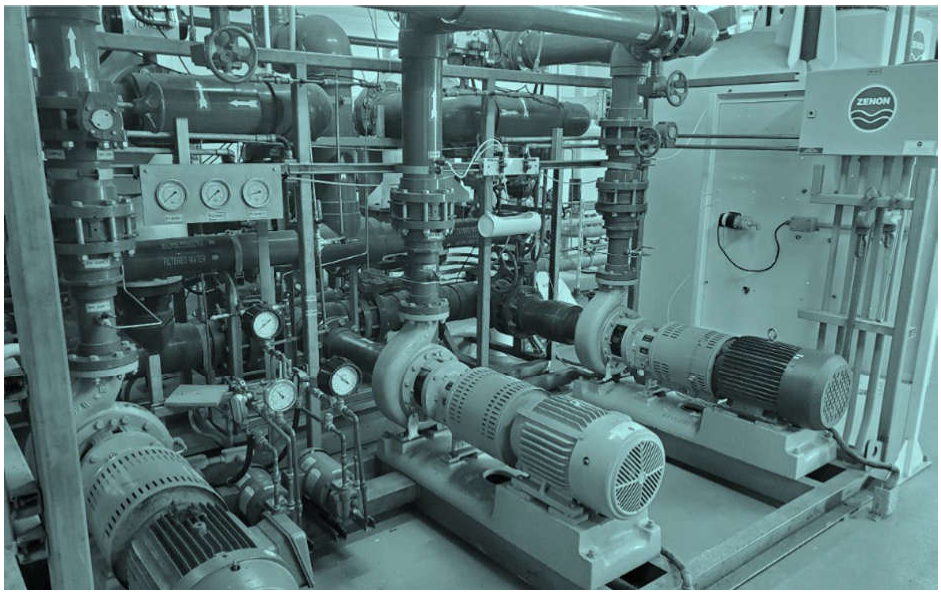
3.3 Operational Parameters

In accordance with Schedule 7 (Operational checks) of O. Reg. 170/03, regulated operational parameters that must be monitored include raw water turbidity, filtrate turbidity, treated water fluoride residuals and free chlorine residuals associated with primary and secondary disinfection. Table 5 summarizes water quality results for regulated and selected unregulated operational parameters. In accordance with Schedule 6 (Operational checks, sampling, and testing – general) of O. Reg. 170/03, certain operational parameters are continuously monitored. No Adverse Water Quality Incidents (AWQIs) pertaining to operational parameters occurred during the reporting period.

Table 5: Results summary for operational parameters

Parameter (Sample Type)	No. of Samples	Units	Min. Result	Max. Result	Annual Avg.	Adverse Result[3]
Turbidity (Raw Water)	52	NTU	0.265	1.49	0.705	n/a
Turbidity (Filter 1)	Continuous	NTU	0.012	0.877	0.054	>1.0
Turbidity (Filter 2)	Continuous	NTU	0.022	0.111	0.042	>1.0
Turbidity (Treated)	366	NTU	0.000	0.213	0.082	n/a
pH (Treated)	Continuous	---	7.2	8.8	7.8	n/a
Alkalinity (Treated)	54	mg/L	20	35	26	n/a
Aluminum Residual (Treated)	52	mg/L	0.003	0.042	0.013	n/a
Fluoride Residual (Treated)	Continuous	mg/L	0.08	1.46	0.81	>1.5
FCR[1] (Treated)	Continuous	mg/L	2.07	2.38	2.26	n/a
FCR[1] (Distribution)[2]	520+	mg/L	0.73	2.86	n/a	<0.05

1. FCR = free chlorine residual.
2. Free chlorine residuals are tested at various locations in the distribution system. The free chlorine residual varies with water age and distribution system location, and the values in the table pertain to the minimum and maximum results collected across all locations in the calendar year.
3. n/a indicates no existing regulatory limit. Monitoring is for operational purposes.



3.4 Membrane Filtration & UV Disinfection Performance

In accordance with the *Municipal Drinking Water Licence*, the filtration process must meet certain performance criteria in order to claim removal credits for Cryptosporidium oocysts and Giardia cysts. Specifically, filter integrity must be monitored, and turbidity must be less than or equal to 0.1 NTU in at least 99% of the measurements each month. Table 6 summarizes filtrate turbidity compliance against the <0.1 NTU/99% performance criterion, and minimum and maximum values in the table correspond to the proportion of time that turbidity was less than or equal to 0.1 NTU in a calendar month. No Adverse Water Quality Incidents (AWQIs) pertaining to membrane filtration performance occurred during the reporting period.

Table 6: Filtration performance summary

Filter	Minimum Result	Maximum Result	Adverse Result
Filter 1	100%	100%	<99%
Filter 2	99.9%	100%	<99%

To achieve primary disinfection, the UV reactors at the Sioux Lookout WTP must operate within their validated operating conditions to achieve a minimum continuous pass-through UV dose of 20 mJ/cm^2 (based on a *Cryptosporidium* bracket reduction equivalent dose). The dose is a function of the flow through the reactors, the applied UV intensity and the UV transmittance (purity) of the filtrate. The reactors are considered to be operating "off-specification" any time when conditions are below a minimum calculated dosage, below a minimum UV transmittance or above a maximum flow rate for more than 2 minutes.

Table 7 summarizes UV equipment performance against the validated operating conditions. An off-specification event is classified as an AWQI if UV equipment operates outside of the validated range *for a continuous period of 10 minutes*. No AWQIs pertaining to UV disinfection occurred during the reporting period.

Table 7: UV disinfection performance summary

Parameter	Number of Samples	Units	Min. Result	Max. Result	Annual Avg.	Adverse Result
Flow (Raw Water[1])	Continuous	L/s	n/a	53.1	n/a	>65.0
Min UV Dosage (Reactor 1)	Continuous	mJ/cm^2	3.13[2]	n/a	29.07	<20.0
Min UV Dosage (Reactor 2)	Continuous	mJ/cm^2	0.00[2]	n/a	35.75	<20.0
UV Transmittance (Filter 1)	106	%/1cm	85.5	89.6	88.0	<82.0
UV Transmittance (Filter 2)	105	%/1cm	83.3	89.8	88.0	<82.0

1. The UV reactors are operating off-specification if the maximum raw water flow rate exceeds 65.0 L/s.
2. All off-specification events were for a continuous period of less than 3 minutes

3.5 Nitrate & Nitrite

Treated water is tested for nitrate and nitrite concentrations on a quarterly basis in accordance with Schedule 13 (Chemical sampling and testing) of O. Reg. 170/03. Nitrate and nitrite results are provided in Table 8. All results were below the Ontario Drinking Water Quality Standards.

Table 8: Nitrate and nitrite results

Sample Date	Nitrate		Nitrite	
	Result (mg/L)	ODWQS (mg/L)	Result (mg/L)	ODWQS (mg/L)
18-Feb-2025	0.074	10	<0.010	1
14-May-2025	0.059		<0.010	
12-Aug-2025	0.021		<0.010	
11-Nov-2025	0.054		<0.010	

3.6 Trihalomethanes & Haloacetic Acids

Trihalomethanes (THMs) and haloacetic acids (HAAs) are sampled on a quarterly basis from a distribution system location that is likely to have an elevated potential for their formation, in accordance with Schedule 13 (Chemical sampling and testing) of O. Reg. 170/03. Total THM and HAA results are provided in Table 9 and Table 10, respectively. Compliance with the provincial standards for trihalomethane and haloacetic acid concentrations is determined by calculating a running annual average (RAA). The 2025 running annual averages for THMs and HAAs were below the respective Ontario Drinking Water Quality Standards.

Table 9: Total THM results

Sample Date	Result (µg/L)	Quarterly Average (µg/L)
18-Feb-25	59.6	59.6
Q1 Regulatory Average (RAA)		89.8
14-May-25	51.4	51.4
Q2 Regulatory Average (RAA)		85.8
12-Aug-25	140.0	140.0
Q3 Regulatory Average (RAA)		86.3
11-Nov-25	91.2	91.2
Q4 Regulatory Average (RAA)		85.6
ODWQS Limit (RAA)		100

Table 10: Total HAA results

Sample Date	Result (µg/L)	Quarterly Average (µg/L)
18-Feb-25	56.9	56.9
Q1 Regulatory Average (RAA)		69.8
14-May-25	39.7	39.7
Q2 Regulatory Average (RAA)		66.1
12-Aug-25	104.0	104.0
Q3 Regulatory Average (RAA)		70.0
11-Nov-25	46.7	46.7
Q4 Regulatory Average (RAA)		65.8
ODWQS Limit (RAA)		80

3.7 Lead Sampling

Based upon favourable drinking-water lead sampling results in the community, the Sioux Lookout Urban Drinking Water System previously qualified for reduced lead sampling and is now exempt from sampling at plumbing locations in accordance with Schedule 15.1 (Lead) of O. Reg. 170/03. Distribution samples must now be collected every year and analyzed for pH and alkalinity. Additionally, these distribution system samples must be analyzed for lead in every third 12-month period (last completed in 2024) after the plumbing sample exemption was activated. Table 11 summarizes the results of lead sampling and related required tests.

Table 11: Distribution pH, alkalinity and lead sampling results

Sample Date	Distribution Sample Location	Lead[1] (µg/L)	pH	Alkalinity (mg/L)
3-Apr-2023	Bleeder - 92 Ethel St	lead analyses not required[2]	7.6	30
3-Apr-2023	Bleeder – Queen St/Second Ave		7.7	25
3-Apr-2023	Standpipe		7.6	30
13-Sept-2023	Hydrant at Meadwell/Fourth Ave		7.6	35
13-Sept-2023	Hydrant at Prince St/Fourth Ave		7.7	35
13-Sept-2023	Hydrant at Front St/Third Ave		7.6	35
10-Apr-2024	Hydrant at North Star Air	<1.0	7.5	25
10-Apr-2024	Bleeder – Lake St.	<1.0	7.8	25
10-Apr-2024	Bleeder – 4th Street/Meadwell	<1.0	7.8	25
8-Oct-2024	Hydrant at North Star Air	<1.0	7.5	25
8-Oct-2024	Bleeder – Lake St.	<1.0	7.7	25
8-Oct-2024	Hydrant at Front St/Third Ave	<1.0	7.6	25
15-Apr-2025	West Queen Bleeder	lead analyses not required[2]	7.7	25
15-Apr-2025	Lake St Bleeder		7.6	20
15-Apr-2025	Front St/ 1st Bleeder		7.5	25
25-Sept-2025	Front St/1st Bleeder		7.5	45
25-Sept-2025	Prince/3rd Hydrant		7.8	45
25-Sept-2025	West Queen Bleeder		7.6	40

1. The Ontario Drinking Water Quality Standard for lead in drinking-water is 10 µg/L.
2. Distribution samples were last collected and tested for lead during Summer 2024 sampling period and will begin again in Winter 2026-27 sampling period.

3.8 Inorganic & Organic Parameters

Most inorganic parameters are sampled on an annual basis in treated water in accordance with Schedules 13 (Chemical sampling and testing) and 23 (Inorganic parameters) of O. Reg. 170/03. The inorganic parameter sodium is sampled every five (5) years in treated water in accordance with Schedules 13 and 23 of O. Reg. 170/03. Although grab samples may be analyzed, regulatory testing for fluoride is achieved using continuous monitoring equipment at the Sioux Lookout Water Treatment Plant in accordance with Schedule 6 of O. Reg. 170/03. The most recent inorganic parameter sampling results are provided in Table 12. All results were below the associated Ontario Drinking Water Quality Standards.

Table 12: Inorganic parameter sampling results

Parameter	Most Recent Sample Date	Units	Result	ODWQS
Antimony	12-Aug-2025	µg/L	<0.60	6
Arsenic	12-Aug-2025	µg/L	<1.0	10
Barium	12-Aug-2025	µg/L	<10	1000
Boron	12-Aug-2025	µg/L	<50	5000
Cadmium	12-Aug-2025	µg/L	<0.10	5
Chromium	12-Aug-2025	µg/L	<1.0	50
Fluoride	20-May-2025	mg/L	0.762	1.5
Mercury	12-Aug-2025	µg/L	<0.100	1
Selenium	12-Aug-2025	µg/L	<1.0	50
Sodium	20-May-2025	mg/L	12.6	20
Uranium	12-Aug-2025	µg/L	<2.0	20

Organic parameters are sampled on an annual basis in treated water in accordance with Schedules 13 (Chemical sampling and testing) and 24 (Organic parameters) of O. Reg. 170/03. These parameters include various organic acids, pesticides, herbicides, PCBs, volatile organics and other chemicals. Sampling for the organic parameters was conducted on August 11, 2025. Sampling results for organic parameters are provided in Table 13; all results were below the associated Ontario Drinking Water Quality Standards.

Table 13: Organic parameter sampling results

Parameter	Result (µg/L)	ODWQS (µg/L)	Parameter	Result (µg/L)	ODWQS (µg/L)
Alachlor	<0.050	5	Diuron	<0.050	150
Atrazine & Metabolites	<0.14	5	Glyphosate	<1.0	280
Azinphos-methyl	<0.10	20	Malathion	<0.025	190
Benzene	<0.50	1	MCPA	<0.00005	100
Benzo(a)pyrene	<0.005	0.01	Metolachlor	<0.025	50
Bromoxynil	<0.050	5	Metribuzin	<0.10	80
Carbaryl	<0.050	90	Monochlorobenzene	<0.50	80
Carbofuran	<0.025	90	Paraquat	<1.0	10
Carbon Tetrachloride	<0.20	2	Pentachlorophenol	<0.50	60
Chlorpyrifos	<0.10	90	Phorate	<0.25	2
Diazinon	<0.025	20	Picloram	<0.10	190
Dicamba	<0.10	120	Total PCBs	<0.030	3
1,2-Dichlorobenzene	<0.50	200	Prometryn	<0.025	1
1,4-Dichlorobenzene	<0.50	5	Simazine	<0.10	10
1,2-Dichloroethane	<0.50	5	Terbufos	<0.50	1
1,1-Dichloroethylene	<0.50	14	Tetrachloroethylene	<0.50	10
Dichloromethane	<1.0	50	2,3,4,6-Tetrachlorophenol	<0.50	100
2,4-Dichlorophenol	<0.20	900	Triallate	<0.10	230
2,4-D	<0.050	100	Trichloroethylene	<0.50	5
Diclofop-methyl	<0.10	9	2,4,6-Trichlorophenol	<0.20	5
Dimethoate	<20.0	20	Trifluralin	<0.10	45
Diquat	<1.0	70	Vinyl Chloride	<0.20	1

3.9 Harmful Algal Bloom Monitoring

Starting in 2022 a requirement was added to the Municipal Drinking Water License to monitor for Harmful Algae Blooms (HABs). If a bloom is suspected or occurring, then microcystin testing must be undertaken. According to the HAB plan sampling must continue for three (3) weeks of no microcystin identified. There were zero (0) reported or suspected blooms during the standard monitoring period in 2025.

There were also no suspected or occurring HABs outside the standard period of June 1 to October 31. Historic sample results have consistently identified no microcystin in raw or treated water when algal blooms are observed. Table 14 provides a summary of suspected or occurring HABs in Sioux Lookout since monitoring began.

Table 14: Recent historical algal bloom summary

Year	Suspected	Harmful Algal Blooms
2022	-	0
2023	2	0
2024	-	0
2025		

4 Water Production

4.1 Overview

In accordance with Schedule 22 (Summary Reports for Municipalities) of O. Reg. 170/03, this Annual Report must include certain information for the purpose of enabling the Owner to assess the capability of the system to meet existing and planned uses. Specifically, this Report must include a summary of the quantities and flow rates of the water supplied during the reporting period, including monthly average and maximum daily flows. The Report must also include a comparison of flow monitoring results to the rated capacity and flow rates approved in the system's *Municipal Drinking Water Licence*.

4.2 Flow Monitoring Results

Throughout the reporting period the Sioux Lookout Urban Drinking Water System operated within its rated capacity and supplied a total of 742,119 m^3 of treated water. On an average day in 2025, 2,033 m^3 of treated water was supplied to the community, which represents 43% of the rated capacity of the Sioux Lookout Water Treatment Plant (5,200 m^3/day). The maximum daily flow in 2025 was 2,906 m^3/day, which represents 56% of the rated capacity of the treatment facility. Flow monitoring results are summarized in Figure 1 and Table 15. The capacity assessments in the table compare the average and maximum daily flows to the rated capacity of the treatment facility.

Figure 1: 2025 average and maximum daily treated water flows

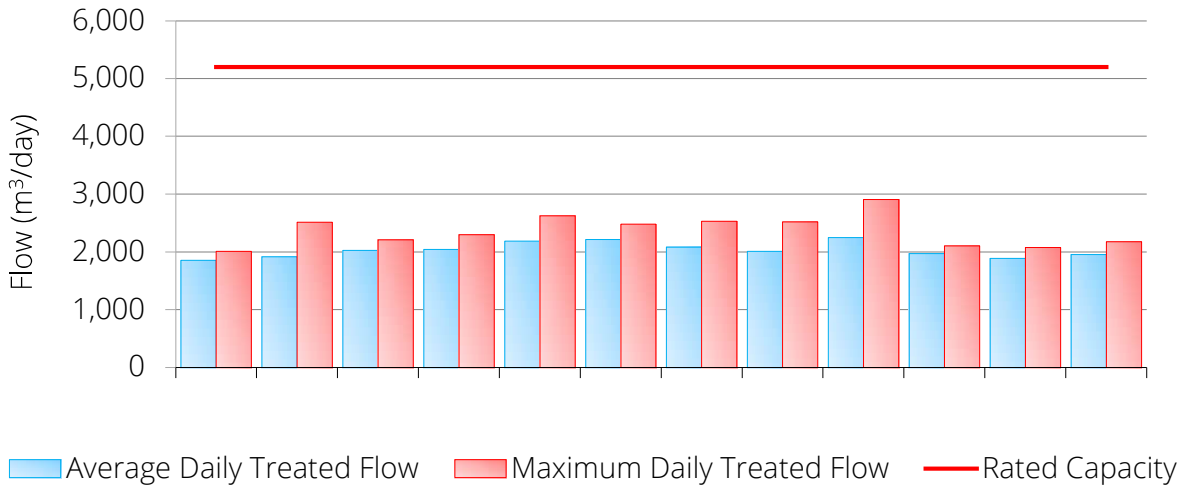


Table 15: 2025 water production summary

Month	Total Volumes (m^3)		Daily Flows (m^3/day)		Capacity Assessments	
	Raw Water	Treated Water	Average - Treated Water	Maximum - Treated Water	Average - Treated Water	Maximum - Treated Water
Jan	66,288	57,451	1,853	2,010	36%	39%
Feb	64,444	55,584	1,917	2,514	37%	48%
Mar	72,870	62,802	2,026	2,209	39%	42%
Apr	69,419	61,228	2,041	2,299	39%	44%
May	76,198	67,753	2,186	2,627	42%	51%
Jun	74,290	66,448	2,215	2,480	43%	48%
Jul	72,649	64,624	2,085	2,529	40%	49%
Aug	68,856	62,244	2,008	2,519	39%	48%
Sep	76,810	67,531	2,251	2,906	43%	56%
Oct	69,990	61,177	1,973	2,102	38%	40%
Nov	64,813	56,635	1,888	2,075	36%	40%
Dec	68,143	58,642	1,955	2,176	38%	42%
Total	844,770	742,119	---	MAX:	---	---
Average	70,398	61,843	2,033	2,906	43%	---

4.3 Recent Historical Flows

Table 16 summarizes recent historical flow monitoring results for the Sioux Lookout Urban Drinking Water System. There was a slight increase in the volumes of source water withdrawn and treated water supplied in 2025 when compared to 2024, and system flows have remained stable over the previous decade. Total annual volumes of treated water supplied in the near future may be expected to be between 700,000 m^3 and 850,000 m^3, which represents approximately 37% to 45% of the rated capacity of the Sioux Lookout Water Treatment Plant.

Table 16: Recent historical water production summary

Year	Total Volumes (m^3)		Daily Flows (m^3/day)		Annual % Change	
	Raw Water	Treated Water	Average – Treated Water	Maximum – Treated Water	Raw Water	Treated Water
2015	819,063	663,813	1,819	2,495	+15.3%	+9.5%
2016	804,401	679,025	1,855	2,522	-1.8%	+2.3%
2017	782,201	680,914	1,866	3,111	-2.8%	+0.3%
2018	760,142	652,723	1,788	2,446	-2.8%	-4.1%
2019	755,581	657,334	1,801	2,517	-0.6%	+0.7%
2020	760,661	660,678	1,805	2,363	+0.7%	+0.5%
2021	759,972	656,924	1,800	2,311	-0.1%	-0.6%
2022	800,029	690,435	1,892	2,700	5.3%	5.1%
2023	866,000	751,196	2,058	2,727	8.2%	8.8%
2024	832,969	712,024	1,951	2,937	-3.8%	-5.2%
2025	844,770	742,119	2,033	2,906	1.4%	4.2%

5 Compliance

5.1 Overview

Northern Waterworks Inc. and the Municipality of Sioux Lookout employ an operational strategy that is committed to achieving the following goals:

- Providing a safe and reliable supply of drinking water to the community of Sioux Lookout;
- Meeting or exceeding all applicable legislative and regulatory requirements; and,
- Maintaining and continually improving the operation and maintenance of the system.

The following sections will summarize incidents of adverse water quality and regulatory noncompliance that occurred during the reporting period. NWI is committed to employing timely and effective corrective actions to prevent recurrence of all identified incidents of adverse water quality and regulatory noncompliance.

5.2 Regulatory Compliance

In accordance with Schedule 22 (Summary Reports for Municipalities) of O. Reg. 170/03, this Report must list any requirements of the *Act*, the regulations, the system's approval, drinking water works permit, municipal drinking water licence, and any orders applicable to the system that were not met at any time during the period covered by the report (i.e., an incident of regulatory noncompliance). Additionally, this Report must specify the duration of the failure and the measures that were taken to correct the failure.

One (1) inspection by Ontario's Ministry of the Environment, Conservation and Parks was initiated during the reporting period. The inspection was initiated on October 8, 2025, and the report was received on November 18, 2025, with a final inspection rating of 100%. Zero (0) incidents of regulatory non-compliance were identified.

5.3 Adverse Water Quality Incidents

In accordance with section 11 (Annual Reports) of O. Reg. 170/03, this Report must summarize any reports made to the Ministry under subsection 18(1) (Duty to report adverse test results) of *the Act* or section 16-4 (Duty to report other observations) of Schedule 16 of O. Reg. 170/03. Additionally, this Report must describe any corrective actions taken under Schedule 17 of O.

Reg. 170/03 during the period covered by the report. There were zero (0) adverse water quality incidents that occurred during the reporting period.