

February 2024

Mayor James McPherson and Council  
The Corporation of the Municipality of Greenstone  
P.O. Box 70  
Geraldton, Ontario  
P0T 1M0

**Re: 2023 Annual Summary Report for the Beardmore Drinking-Water System**  
**2023 Annual Summary Report for the Caramat Drinking-Water System**  
**2023 Annual Summary Report for the Geraldton Drinking-Water System**  
**2023 Annual Summary Report for the Longlac Drinking-Water System**  
**2023 Annual Summary Report for the Nakina Drinking-Water System**

Ontario's Drinking-Water Systems Regulation (O.Reg.170/03), made under the *Safe Drinking Water Act, 2002*, requires that the owner of a drinking water system prepare an annual summary for municipalities on the operation of the system and the quality of its water.

The annual summary must cover the period of January 1<sup>st</sup> to December 31<sup>st</sup> in a year and must *be prepared not later than March 31<sup>st</sup>* of the following year. Pursuant to the legislative requirements, enclosed for your records is the 2023 Annual Summary for the Greenstone Drinking-Water Systems.

Pursuant to the legislative requirements, *Schedule 22 Summary Reports for Municipalities*, the annual summary must:

- (a) list the 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; and,
- (b) for each requirement referred to in clause (a) that was not met, specify the duration of the failure and the measures that were taken to correct the failure."

- O. Reg. 170/03 s. 22 (2)

"The report must also include the following information for the purpose of enabling the owner of the system to assess the rated capability of their system to meet existing and planned uses of the system:

1. A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows.
2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval, drinking water works permit or municipal drinking water licence, or if the system is receiving all of its water from

another system under an agreement pursuant to subsection 5 (4), to the flow rates specified in the written agreement.”

-O. Reg. 170/03 s. 22 (3)

In addition, Section 12 (1) - 4 - gives the direction that a copy of the annual summary for the system is given, without charge, to every person who requests a copy and be made available for inspection by any member of the public during normal business hours. The reports should be made available at the office of the municipality, or at a location that is accessible to the users of the water system.

These reports were prepared by the Ontario Clean Water Agency on behalf of the Corporation of the Municipality of Greenstone and are based on information kept on record by OCWA at each specific water treatment plant. The report covers the period January 1<sup>st</sup> through to December 31<sup>st</sup> 2023.

Yours truly,

*Patrick Albert*

Patrick Albert  
Regional Manager (A)  
Northwestern Ontario Regional Hub  
807-853-2356

Copy to: Mark Wright - CAO  
Brian Aaltonen – Director of Public Services  
Operations Staff – Beardmore WTP  
Operations Staff – Caramat WTP  
Operations Staff – Geraldton WTP  
Operations Staff – Longlac WTP  
Operations Staff – Nakina WS

# 2023 Schedule 22 Annual Summary Report

## Beardmore Drinking-Water System

February 2024

Prepared by the



**Ontario Clean Water Agency**  
**Agence Ontarienne Des Eaux**

*Table of Contents*

**Section 1: Introduction .....2**

**Section 2: What Does This Report Contain? .....2**

**Section 3: Daily Flow Rates .....3**

**Section 4: System Failures and Corrections .....5**

**Section 5: Conclusion .....5**

## ***Section 1: Introduction***

---

This report is a summary of water quality information for the Beardmore Drinking-Water System, published in accordance with Schedule 22 of Ontario's Drinking-Water Systems Regulation for the reporting period of January 1<sup>st</sup> to December 31<sup>st</sup> 2023. The Beardmore Drinking-Water System is categorized as a Large Municipal Residential Drinking-Water System.

This report is prepared by The Ontario Clean Water Agency on behalf of the Corporation of the Municipality of Greenstone – Beardmore Ward. A copy of the Summary Report is to be provided to the members of the municipal council by March 31<sup>st</sup> 2024.

## ***Section 2: What Does This Report Contain?***

---

"The report must,

- (a) list the 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; and,
- (b) for each requirement referred to in clause (a) that was not met, specify the duration of the failure and the measures that were taken to correct the failure."

- O. Reg. 170/03 s. 22 (2)

"The report must also include the following information for the purpose of enabling the owner of the system to assess the rated capability of their system to meet existing and planned uses of the system:

1. A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows.
2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system's approval, drinking water works permit or municipal drinking water licence, or if the system is receiving all of its water from another system under an agreement pursuant to subsection 5 (4), to the flow rates specified in the written agreement."

-O. Reg. 170/03 s. 22 (3)

### **Section 3: Daily Flow Rates**

---

In accordance with the ***Municipal Drinking Water Licence 225-102 Schedule C: System – Specific Conditions 1.0 Performance Limits***, the Beardmore drinking water system shall not be operated to exceed the rated capacity for maximum flow rate from the treatment subsystem to the distribution system of **752 m<sup>3</sup> / day**.

The drinking water system may be operated temporarily at a rate above the rated capacity where necessary for:

- (i) the purposes of fighting a large fire or,
  
- (ii) the maintenance of the drinking-water system

In 2023, the average monthly raw flow rate was 2,191.94 m<sup>3</sup>; the average raw daily flow rate was 72.16 m<sup>3</sup>, with a maximum raw daily flow rate of 261.69 m<sup>3</sup>.

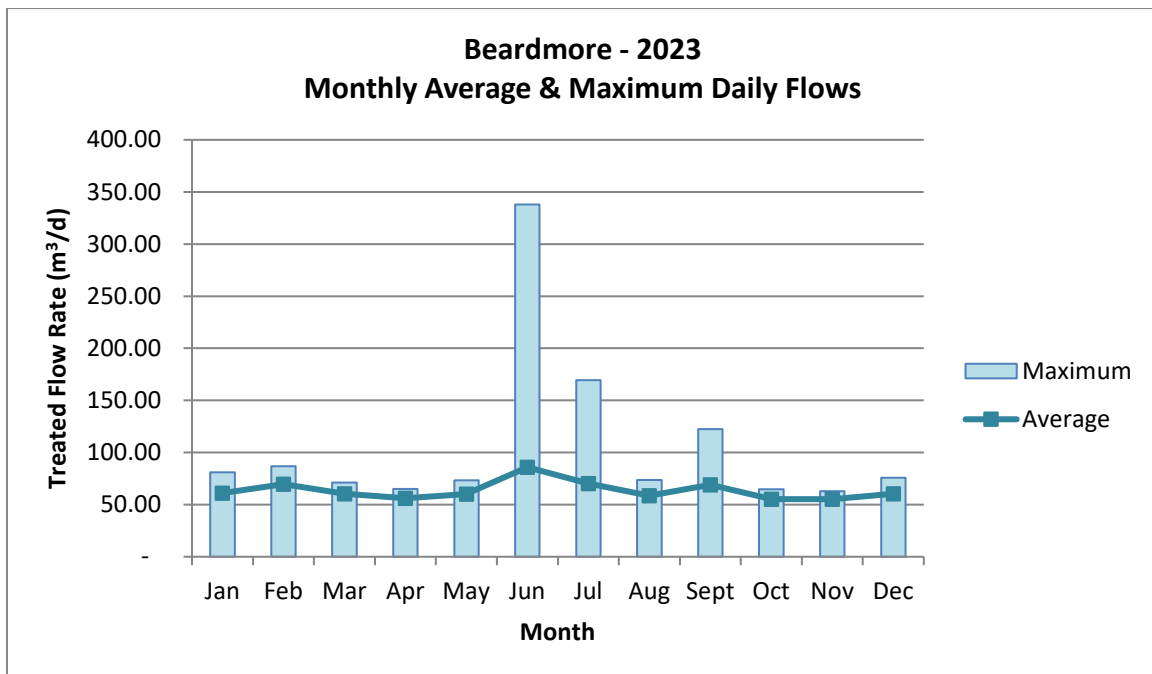
In 2023, the average monthly treated flow rate was 1,930.45 m<sup>3</sup>; the average daily treated flow was 63.55 m<sup>3</sup> and the maximum daily treated flow for the year was 338.12 m<sup>3</sup>; this represents 45 % of the allowable daily volume.

A summary of raw and treated flows, including maximum raw flow into the treatment system as well as treated average, maximum and total flow rates are included in the tables below.

The quantity of raw water supplied during the reporting period did not exceed the terms and conditions of the *Permit to Take Water* nor did the treated flows directed to the distribution system exceed the rated capacity for this system.

### Monthly Raw & Treated Flow Rates for 2023

Month	Average Daily Raw Flow Rate (m <sup>3</sup> /d)	Maximum Daily Raw Flow Rate (m <sup>3</sup> /d)	Average Daily Treated Flow Rate (m <sup>3</sup> /d)	Maximum Daily Treated Flow Rate (m <sup>3</sup> /d)	Total Monthly Treated Flow Rate (m <sup>3</sup> /month)
January	74.27	129.08	61.08	80.92	1,893.36
February	79.93	101.41	69.58	86.98	1,948.27
March	67.72	102.26	60.40	71.15	1,872.26
April	66.41	90.44	56.23	64.94	1,686.87
May	67.57	92.88	60.28	73.32	1,868.66
June	96.71	261.69	85.89	338.12	2,576.63
July	84.41	179.51	70.41	169.36	2,182.58
August	66.95	87.63	58.61	73.71	1,816.85
September	75.30	140.08	69.10	122.54	2,072.96
October	60.41	86.30	55.29	64.78	1,713.86
November	60.26	95.55	55.34	62.85	1,660.08
December	65.92	98.81	60.42	75.92	1,872.98
2023 Total Treated Flows (m <sup>3</sup> )				23,165.35	



## Section 4: System Failures and Correction

---

The Ministry of Environment conducted an inspection of the water plant on January 17 2024. The report identified one non-compliance, as noted below.

The Inspection Report Rating was 99.20%.

Item	Non-Compliance Identified	Compliance Date	Action Being Taken to Address item	Status
1	Logbooks were not properly maintained and/or did not contain the required information	N/A	Operators reminded of need to log all adjustments to operational parameters.	Complete

## Section 5: Conclusion

---

In the reporting year of 2023, there were three adverse water quality incidents (AWQI) reports filed.

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
2023-02-21	HAA RAA Exceedance	80	ug/L		2023-04-18
2023-05-10	TC Present	27	cfu/100ml	Resample	2023-05-15
2023-09-27	TC Present	>200	cfu/100ml	Resample	2023-10-01

For the operating year of 2023, the Beardmore Drinking-Water System was able to meet the demand of water use within the town without exceeding the Municipal Drinking Water Licence and Permit to Take Water.



# 2023 Schedule 22 Annual Summary Report

## Caramat Drinking-Water System

February 2024

Prepared by the



**Ontario Clean Water Agency**  
**Agence Ontarienne Des Eaux**

*Table of Contents*

**Section 1: Introduction .....2**

**Section 2: What Does This Report Contain? .....2**

**Section 3: Daily Flow Rates .....3**

**Section 4: System Failures and Corrections .....5**

**Section 5: Conclusion .....5**

## ***Section 1: Introduction***

---

This report is a summary of water quality information for the Caramat Drinking-Water System, published in accordance with Schedule 22 of Ontario’s Drinking-Water Systems Regulation for the reporting period of January 1<sup>st</sup> to December 31<sup>st</sup> 2023. The Caramat Drinking-Water System is categorized as a Small Municipal Residential Drinking-Water System.

This report is prepared by The Ontario Clean Water Agency on behalf of the Corporation of the Municipality of Greenstone – Caramat Ward. A copy of the Summary Report is to be provided to the members of the municipal council by March 31<sup>st</sup> 2024.

## ***Section 2: What Does This Report Contain?***

---

“The report must,

- (a) list the 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; and,
  
- (b) for each requirement referred to in clause (a) that was not met, specify the duration of the failure and the measures that were taken to correct the failure.”

- O. Reg. 170/03 s. 22 (2)

“The report must also include the following information for the purpose of enabling the owner of the system to assess the rated capability of their system to meet existing and planned uses of the system:

1. A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows.
  
2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system’s approval, drinking water works permit or municipal drinking water licence, or if the system is receiving all of its water from another system under an agreement pursuant to subsection 5 (4), to the flow rates specified in the written agreement.”

-O. Reg. 170/03 s. 22 (3)

### **Section 3: Daily Flow Rates**

---

In accordance with the ***Municipal Drinking Water Licence 225-101 Schedule C: System – Specific Conditions 1.0 Performance Limits***, the Caramat drinking water system shall not be operated to exceed the rated capacity for maximum flow rate from the treatment subsystem to the distribution system of **75.2 m<sup>3</sup> / day**.

The drinking water system may be operated temporarily at a rate above the rated capacity where necessary for:

- (i) the purposes of fighting a large fire or,
- (ii) the maintenance of the drinking-water system

In 2023, the average monthly raw flow rate was 408.92 m<sup>3</sup>; the average raw daily flow rate was 13.43 m<sup>3</sup>, with a maximum raw daily flow rate of 37.80 m<sup>3</sup>.

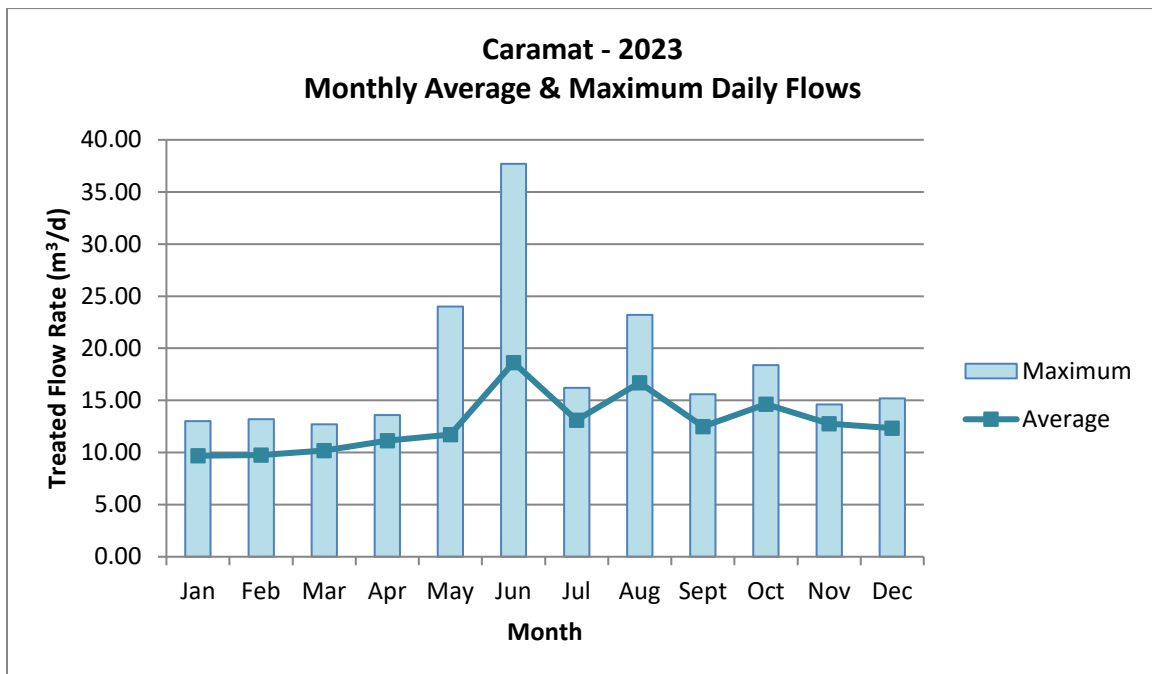
In 2023, the average monthly treated flow rate was 388.68 m<sup>3</sup>; the average daily treated flow was 12.76 m<sup>3</sup> and the maximum daily treated flow for the year was 37.70 m<sup>3</sup>; this represents 50% of the allowable daily volume.

A summary of raw and treated flows, including maximum raw flow into the treatment system as well as treated average, maximum and total flow rates are included in the tables below.

The quantity of raw water supplied during the reporting period did not exceed the terms and conditions of the *Permit to Take Water* nor did the treated flows directed to the distribution system exceed the rated capacity for this system.

### Monthly Raw & Treated Flow Rates for 2023

Month	Average Daily Raw Flow Rate (m <sup>3</sup> /d)	Maximum Daily Raw Flow Rate (m <sup>3</sup> /d)	Average Daily Treated Flow Rate (m <sup>3</sup> /d)	Maximum Daily Treated Flow Rate (m <sup>3</sup> /d)	Total Monthly Treated Flow Rate (m <sup>3</sup> /month)
January	11.25	15.70	9.70	13.00	300.60
February	11.37	14.60	9.76	13.20	273.30
March	12.61	21.50	10.17	12.70	315.40
April	11.88	14.30	11.13	13.60	334.00
May	11.85	21.80	11.73	24.00	363.50
June	17.57	37.80	18.63	37.70	558.90
July	13.44	21.80	13.12	16.20	406.60
August	17.38	28.30	16.68	23.20	517.20
September	12.60	21.80	12.50	15.60	375.10
October	14.35	18.40	14.65	18.40	454.00
November	13.40	16.50	12.78	14.60	383.40
December	13.48	18.90	12.33	15.20	382.20
2023 Total Treated Flows (m <sup>3</sup> )				<b>4,664.20</b>	



## ***Section 4: System Failures and Correction***

---

The Ministry of the Environment conducted an inspection of the Caramat Drinking-Water System on November 10 2023. There were no non-compliances identified in the inspection.

The inspection rating was 100.00%

<b>Item</b>	<b>Non-Compliance Identified</b>	<b>Compliance Date</b>	<b>Action Being Taken to Address item</b>	<b>Status</b>

## ***Section 5: Conclusion***

---

In the reporting year of 2023, there were no adverse water quality incident (AWQI) reports filed as summarized in the below table.

<b>Incident Date</b>	<b>Parameter</b>	<b>Result</b>	<b>Unit of Measure</b>	<b>Corrective Action</b>	<b>Corrective Action Date</b>

The treated water samples at the plant and in the distribution system were shown to be free of bacteriological contaminants and met the Ontario Drinking Water Quality Standards.

For the operating year of 2023, the Caramat Drinking-Water System was able to meet the demand of water use within the town without exceeding the Municipal Drinking Water Licence and Permit to Take Water.

# 2023 Schedule 22 Annual Summary Report

## Geraldton Drinking-Water System

February 2024

Prepared by the



**Ontario Clean Water Agency**  
**Agence Ontarienne Des Eaux**

## *Table of Contents*

<b>Section 1: Introduction</b> .....	<b>2</b>
<b>Section 2: What Does This Report Contain?</b> .....	<b>2</b>
<b>Section 3: Daily Flow Rates</b> .....	<b>3</b>
<b>Section 4: System Failures and Corrections</b> .....	<b>5</b>
<b>Section 5: Conclusion</b> .....	<b>5</b>



## ***Section 1: Introduction***

---

This report is a summary of water quality information for the Geraldton Drinking-Water System, published in accordance with Schedule 22 of Ontario’s Drinking-Water Systems Regulation for the reporting period of January 1<sup>st</sup> to December 31<sup>st</sup> 2023. The Geraldton Drinking-Water System is categorized as a Large Municipal Residential Drinking Water System.

This report is prepared by The Ontario Clean Water Agency on behalf of the Corporation of the Municipality of Greenstone – Geraldton Ward. A copy of the Summary Report is to be provided to the members of the municipal council by March 31<sup>st</sup> 2024.

## ***Section 2: What Does This Report Contain?***

---

“The report must,

- (a) list the 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; and,
- (b) for each requirement referred to in clause (a) that was not met, specify the duration of the failure and the measures that were taken to correct the failure.”

- O. Reg. 170/03 s. 22 (2)

“The report must also include the following information for the purpose of enabling the owner of the system to assess the rated capability of their system to meet existing and planned uses of the system:

1. A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows.
2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system’s approval, drinking water works permit or municipal drinking water licence, or if the system is receiving all of its water from another system under an agreement pursuant to subsection 5 (4), to the flow rates specified in the written agreement.”

-O. Reg. 170/03 s. 22 (3)

### Section 3: Daily Flow Rates

---

In accordance with the ***Municipal Drinking Water Licence 225-104 Schedule C: System – Specific Conditions 1.0 Performance Limits***, the Geraldton Drinking-Water system shall not be operated to exceed the rated capacity for maximum flow rate from the treatment subsystem to the distribution system of **6045 m<sup>3</sup> / day**.

The drinking water system may be operated temporarily at a rate above the rated capacity where necessary for:

- (i) the purposes of fighting a large fire or,
- (ii) the maintenance of the drinking-water system

In 2023, the average monthly raw flow rate was 48,278.92 m<sup>3</sup>; the average raw daily flow rate was 1,587.96 m<sup>3</sup>, with a maximum raw daily flow rate of 4,239.00 m<sup>3</sup>.

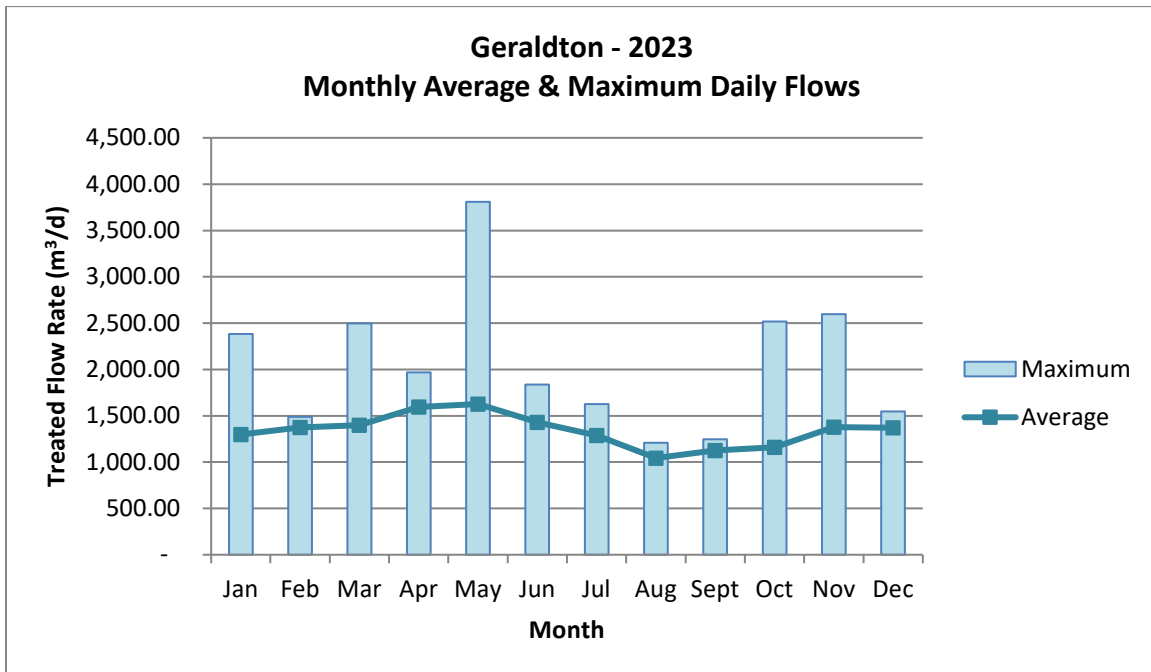
In 2023, the average monthly treated flow rate was 40,763.17 m<sup>3</sup>; the average daily treated flow was 1,340.88 m<sup>3</sup> and the maximum daily treated flow for the year was 3,810.00 m<sup>3</sup>; this represents 63% of the allowable daily volume.

A summary of raw and treated flows, including maximum raw flow into the treatment system as well as treated average, maximum and total flow rates are included in the tables below.

The quantity of raw water supplied during the reporting period did not exceed the terms and conditions of the *Permit to Take Water* nor did the treated flows directed to the distribution system exceed the rated capacity for this system.

### Monthly Raw & Treated Flow Rates for 2023

Month	Average Daily Raw Flow Rate (m <sup>3</sup> /d)	Maximum Daily Raw Flow Rate (m <sup>3</sup> /d)	Average Daily Treated Flow Rate (m <sup>3</sup> /d)	Maximum Daily Treated Flow Rate (m <sup>3</sup> /d)	Total Monthly Treated Flow Rate (m <sup>3</sup> /month)
January	1,571.35	3,014.00	1,299.52	2,382.00	40,285.00
February	1,625.46	1,753.00	1,373.32	1,487.00	38,453.00
March	1,655.29	2,917.00	1,398.77	2,497.00	43,362.00
April	1,855.23	2,370.00	1,593.57	1,969.00	47,807.00
May	1,908.23	4,239.00	1,626.77	3,810.00	50,430.00
June	1,654.03	2,086.00	1,431.03	1,838.00	42,931.00
July	1,503.87	1,814.00	1,286.90	1,628.00	39,894.00
August	1,273.16	1,572.00	1,044.19	1,207.00	32,370.00
September	1,368.83	1,555.00	1,124.60	1,247.00	33,738.00
October	1,420.19	2,692.00	1,160.61	2,519.00	35,979.00
November	1,621.33	3,071.00	1,379.03	2,597.00	41,371.00
December	1,598.58	1,833.00	1,372.19	1,548.00	42,538.00
<b>2023 Total Treated Flows (m<sup>3</sup>)</b>				<b>489,158.00</b>	



## Section 4: System Failures and Correction

The Ministry of Environment conducted an inspection of the Geraldton Drinking-Water System on June 28 2023. There were no non-compliances identified in the report.

The inspection report rating was 100%.

Item	Non-Compliance Identified	Compliance Date	Action Being Taken to Address item	Status
------	---------------------------	-----------------	------------------------------------	--------

## Section 5: Conclusion

In the reporting year of 2023, there were eleven adverse water quality incident (AWQI) reports filed as summarized below.

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
2023-04-13	Other Observation - Loss of pressure due to water break. 16 homes 2 business affected			Sampled one set Bacti	2023-04-19
2023-05-08	Main Break			Sampled one set Bacti	2023-05-12
2023-06-19	Other Observation - Loss of pressure due to water break. 20 homes 2 business affected			Repair and Flush, Sample at 2 locations	2023-06-23
2023-07-19	Installing new main with valves leaked on July 19 2023.			Collect two samples 16hrs apart	2023-07-25
2023-08-01	Loss of pressure during a hydrant replacement			Collect one bacti sample	2023-08-04
2023-08-28	Loss of Data - HMI failure			Replace communications card, alarms active during outage and plant operation.	2023-08-28
2023-09-13	Main Break			Collect 2 sets of Bacti Samples	2023-09-19
2023-09-27	TC Present - Distribution 107 Edith	68	cfu/100 ml	resample	2023-10-04
2023-09-27	TC Present - Treated	NDOGT		resample	2023-10-04
2023-09-30	TC Present - Distribution 101 Edith (second resample AWQI163645)	28	cfu/100ml	Resample	2023-10-03
2023-10-30	Main Break			Collect bacti sample	2023-11-03

The inspection found the plant to be producing good quality water. The treated water samples at the plant were shown to be free of bacteriological contaminants and met the Ontario Drinking Water Quality Standards, with the exception 3 incidents noted above.

For the operating year of 2023, the Geraldton Drinking-Water System was able to meet the demand of water use within the town without exceeding the Municipal Drinking Water Licence and Permit to Take Water.

# 2023 Schedule 22 Annual Summary Report

Longlac Drinking-Water System

February 2024

Prepared by the



**Ontario Clean Water Agency**  
**Agence Ontarienne Des Eaux**

## *Table of Contents*

<b>Section 1: Introduction</b> .....	<b>2</b>
<b>Section 2: What Does This Report Contain?</b> .....	<b>2</b>
<b>Section 3: Daily Flow Rates</b> .....	<b>3</b>
<b>Section 4: System Failures and Corrections</b> .....	<b>5</b>
<b>Section 5: Conclusion</b> .....	<b>5</b>

## ***Section 1: Introduction***

---

This report is a summary of water quality information for the Longlac Drinking-Water System, published in accordance with Schedule 22 of Ontario’s Drinking-Water Systems Regulation for the reporting period of January 1<sup>st</sup> to December 31<sup>st</sup> 2023. The Longlac Drinking-Water System is categorized as a Large Municipal Residential Drinking Water System.

This report is prepared by The Ontario Clean Water Agency on behalf of the Corporation of the Municipality of Greenstone – Longlac Ward. A copy of the Summary Report is to be provided to the members of the municipal council by March 31<sup>st</sup> 2024.

## ***Section 2: What Does This Report Contain?***

---

“The report must,

- (a) list the 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; and,
- (b) for each requirement referred to in clause (a) that was not met, specify the duration of the failure and the measures that were taken to correct the failure.”

- O. Reg. 170/03 s. 22 (2)

“The report must also include the following information for the purpose of enabling the owner of the system to assess the rated capability of their system to meet existing and planned uses of the system:

1. A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows.
2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system’s approval, drinking water works permit or municipal drinking water licence, or if the system is receiving all of its water from another system under an agreement pursuant to subsection 5 (4), to the flow rates specified in the written agreement.”

-O. Reg. 170/03 s. 22 (3)



### **Section 3: Daily Flow Rates**

---

In accordance with the ***Municipal Drinking Water Licence 225-105 Schedule C: System – Specific Conditions 1.0 Performance Limits***, the Longlac drinking water system shall not be operated to exceed the rated capacity for maximum flow rate from the treatment subsystem to the distribution system of **4540 m<sup>3</sup> / day**.

The drinking water system may be operated temporarily at a rate above the rated capacity where necessary for:

- (i) the purposes of fighting a large fire or,
- (ii) the maintenance of the drinking-water system

In 2023, the average monthly raw flow rate was 30,443.17 m<sup>3</sup>; the average raw daily flow rate was 1,001.47 m<sup>3</sup>, with a maximum raw daily flow rate of 1,738.00 m<sup>3</sup>.

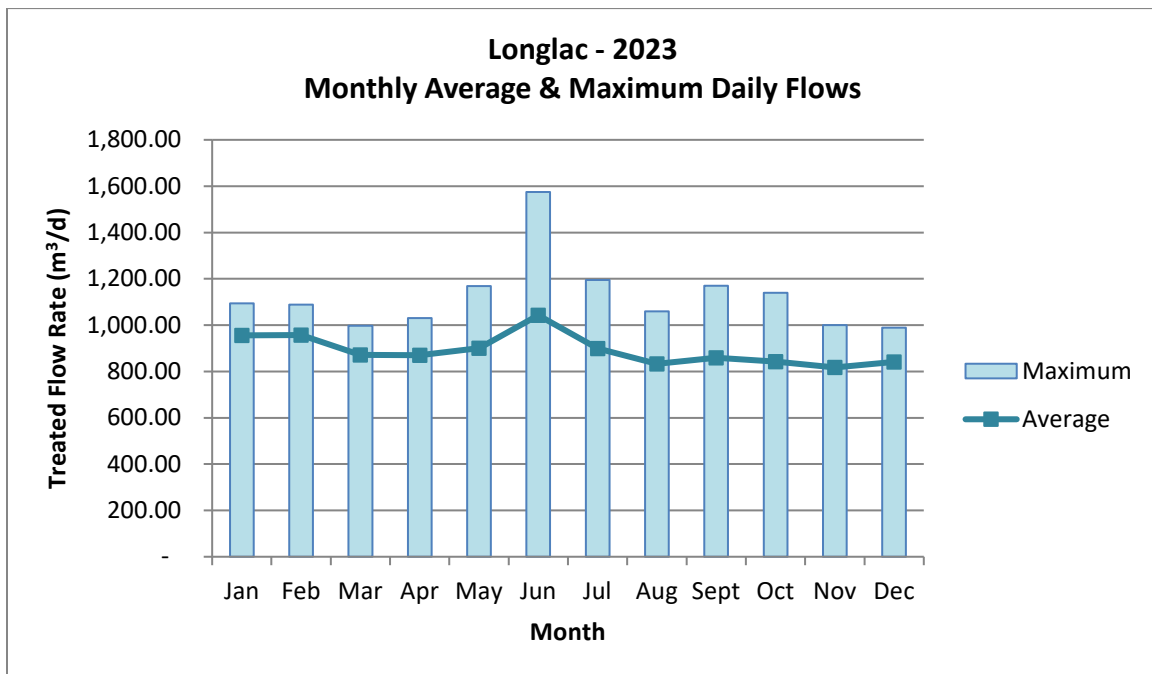
In 2023, the average monthly treated flow rate was 27,075.25 m<sup>3</sup>; the average daily treated flow was 890.76 m<sup>3</sup> and the maximum daily treated flow for the year was 1,575.00 m<sup>3</sup>; this represents 35% of the allowable daily volume.

A summary of raw and treated flows, including maximum raw flow into the treatment system as well as treated average, maximum and total flow rates are included in the tables below.

The quantity of raw water supplied during the reporting period did not exceed the terms and conditions of the *Permit to Take Water* nor did the treated flows directed to the distribution system exceed the rated capacity for this system.

### Monthly Raw & Treated Flow Rates for 2023

Month	Average Daily Raw Flow Rate (m <sup>3</sup> /d)	Maximum Daily Raw Flow Rate (m <sup>3</sup> /d)	Average Daily Treated Flow Rate (m <sup>3</sup> /d)	Maximum Daily Treated Flow Rate (m <sup>3</sup> /d)	Total Monthly Treated Flow Rate (m <sup>3</sup> /month)
January	1,087.10	1,295.00	955.55	1,094.00	29,622.00
February	1,058.68	1,135.00	957.04	1,088.00	26,797.00
March	968.26	1,077.00	871.61	998.00	27,020.00
April	972.40	1,072.00	869.90	1,030.00	26,097.00
May	1,001.35	1,172.00	900.03	1,168.00	27,901.00
June	1,206.00	1,738.00	1,042.93	1,575.00	31,288.00
July	1,025.77	1,294.00	898.74	1,195.00	27,861.00
August	957.42	1,158.00	833.32	1,059.00	25,833.00
September	946.97	1,165.00	858.93	1,170.00	25,768.00
October	926.16	1,242.00	843.19	1,139.00	26,139.00
November	927.57	1,098.00	817.33	1,000.00	24,520.00
December	939.97	1,062.00	840.55	989.00	26,057.00
2023 Total Treated Flows (m <sup>3</sup> )				<b>324,903.00</b>	



## Section 4: System Failures and Correction

The Ministry of Environment conducted an inspection of the Longlac Drinking-Water System on November 9 2023. There were no non-compliance identified in this inspection.

The final inspection rating was 100%

Item	Non-Compliance Identified	Compliance Date	Action Being Taken to Address item	Status

## Section 5: Conclusion

In the reporting year of 2023, there were seven adverse water quality incident (AWQI) report filed as summarized below.

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
2023-01-15	Other Observation - Loss of pressure (Forestry- 75 residences, 10 Business, 3 schools)			Flush and one Bacti sample collected downstream of break.	2023-01-18
2023-02-21	HAA RAA Exceedance	82	ug/L		
2023-04-19	Lead Exceedance	37	mg/L	Resampled	2023-04-27
2023-06-13	Other Observation - Loss of pressure Ginoogaming - 200 residences and sawmill			flush and resample bacti	2023-06-16
2023-07-25	Chlorine Analyzer failure	0	mg/L	replaced UPS backup unit	2023-07-25
2023-08-11	EC Exceedance on treated sample	>200	cfu/100ml	Two sets samples including treated, Plant washroom and closest user as per MOH. Increase disinfection.	2023-08-13
2023-08-23	TC Exceedance on Distribution sample (LCBO)	2	cfu/100ml	Resample upstream, at location and downstream	2023-08-25

The inspection found the plant to be producing good quality water. The treated water samples at the plant and in the distribution system were shown to be free of bacteriological contaminants and met the Ontario Drinking Water Quality Standards, with the exception of 2 incidents noted above.

For the operating year of 2023, the Longlac Drinking Water System was able to meet the demand of water use within the town without exceeding the Municipal Drinking Water License and Permit to Take Water.

# 2023 Schedule 22 Annual Summary Report

Nakina Drinking-Water System

February 2024

Prepared by the



**Ontario Clean Water Agency**  
**Agence Ontarienne Des Eaux**

*Table of Contents*

**Section 1: Introduction .....2**

**Section 2: What Does This Report Contain? .....2**

**Section 3: Daily Flow Rates .....3**

**Section 4: System Failures and Corrections .....5**

**Section 5: Conclusion .....5**

## ***Section 1: Introduction***

---

This report is a summary of water quality information for the Nakina Drinking-Water System, published in accordance with Schedule 22 of Ontario’s Drinking-Water Systems Regulation for the reporting period of January 1st to December 31st 2023. The Nakina Drinking-Water System is categorized as a Large Municipal Residential Drinking Water System.

This report is prepared by The Ontario Clean Water Agency on behalf of the Corporation of the Municipality of Greenstone – Nakina Ward. A copy of the Summary Report is to be provided to the members of the municipal council by March 31st 2024.

## ***Section 2: What Does This Report Contain?***

---

“The report must,

- (a) list the 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; and,
- (b) for each requirement referred to in clause (a) that was not met, specify the duration of the failure and the measures that were taken to correct the failure.”

- O. Reg. 170/03 s. 22 (2)

“The report must also include the following information for the purpose of enabling the owner of the system to assess the rated capability of their system to meet existing and planned uses of the system:

1. A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows.
2. A comparison of the summary referred to in paragraph 1 to the rated capacity and flow rates approved in the system’s approval, drinking water works permit or municipal drinking water licence, or if the system is receiving all of its water from another system under an agreement pursuant to subsection 5 (4), to the flow rates specified in the written agreement.”

-O. Reg. 170/03 s. 22 (3)

### Section 3: Daily Flow Rates

---

In accordance with the ***Municipal Drinking Water Licence 225-103 Schedule C: System – Specific Conditions 1.0 Performance Limits***, the Nakina drinking water system shall not be operated to exceed the rated capacity for maximum flow rate from the treatment subsystem to the distribution system of **2000 m<sup>3</sup> / day**.

The drinking water system may be operated temporarily at a rate above the rated capacity where necessary for:

- (i) the purposes of fighting a large fire or,
- (ii) the maintenance of the drinking-water system

In 2023, the average monthly raw flow rate was 6,657.17 m<sup>3</sup>; the average raw daily flow rate was 218.87 m<sup>3</sup>, with a maximum raw daily flow rate of 541.00 m<sup>3</sup>.

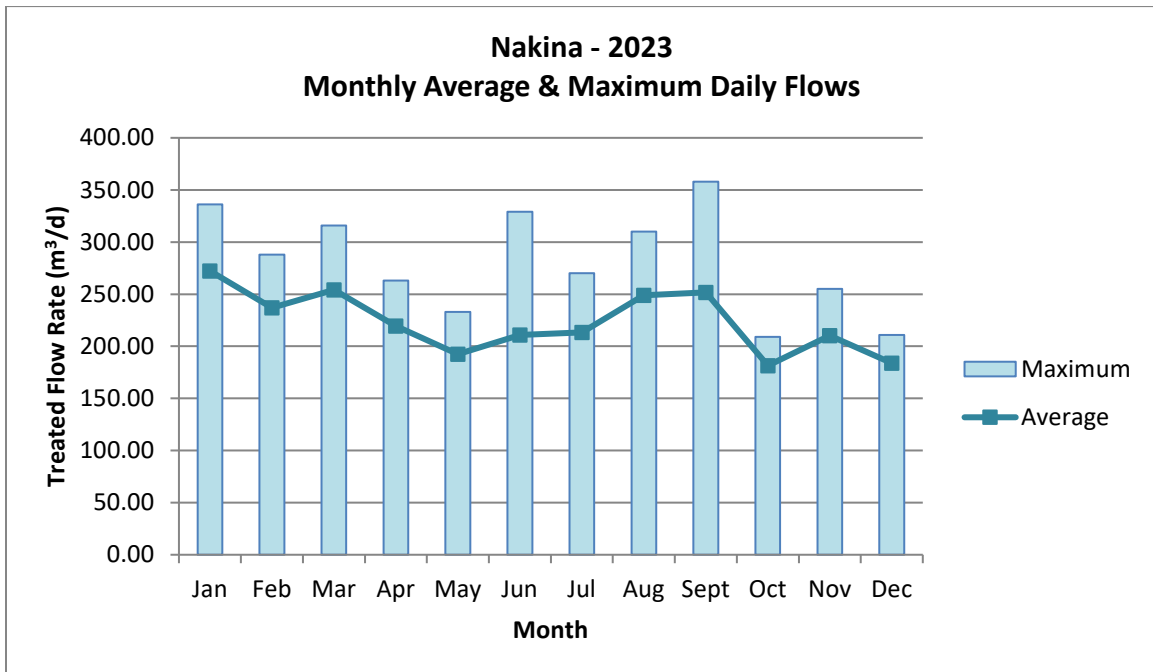
In 2023, the average monthly treated flow rate was 6,779.17 m<sup>3</sup>; the average daily treated flow was 222.99 m<sup>3</sup> and the maximum daily treated flow for the year was 358.00 m<sup>3</sup>; this represents 18% of the allowable daily volume.

A summary of raw and treated flows, including maximum raw flow into the treatment system as well as treated average, maximum and total flow rates are included in the tables below.

The quantity of raw water supplied during the reporting period did not exceed the terms and conditions of the *Permit to Take Water* nor did the treated flows directed to the distribution system exceed the rated capacity for this system.

### Monthly Raw & Treated Flow Rates for 2023

Month	Average Daily Raw Flow Rate (m <sup>3</sup> /d)	Maximum Daily Raw Flow Rate (m <sup>3</sup> /d)	Average Daily Treated Flow Rate (m <sup>3</sup> /d)	Maximum Daily Treated Flow Rate (m <sup>3</sup> /d)	Total Monthly Treated Flow Rate (m <sup>3</sup> /month)
January	275.32	804.00	272.32	336.00	8,442.00
February	235.43	527.00	237.11	288.00	6,639.00
March	246.84	593.00	254.26	316.00	7,882.00
April	216.40	526.00	219.43	263.00	6,583.00
May	190.35	503.00	192.45	233.00	5,966.00
June	197.37	611.00	210.83	329.00	6,325.00
July	214.03	683.00	213.26	270.00	6,611.00
August	241.58	652.00	248.84	310.00	7,714.00
September	241.07	809.00	251.83	358.00	7,555.00
October	184.32	503.00	181.45	209.00	5,625.00
November	204.60	512.00	210.37	255.00	6,311.00
December	180.19	505.00	183.77	211.00	5,697.00
2023 Total Treated Flows (m <sup>3</sup> )				<b>81,350.00</b>	





## Section 4: System Failures and Correction

The Ministry of Environment conducted an inspection of the Nakina Drinking Water System on June 29 2023. The 2023 final inspection report identified no non-compliances.

The 2023 final inspection rating record for the Nakina Drinking Water System was 100%.

Item	Non-Compliance Identified	Compliance Date	Action Being Taken to Address item	Status
N/A	N/A	N/A	N/A	N/A

## Section 5: Conclusion

In the reporting year of 2023, there were no adverse water quality incident (AWQI) reports filed.

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
2023-01-19	Repair on a leaking water line Thorton			Flushed 10 min and sampled downstream as per MOH	2023-01-25
2023-01-25	Repair on a broken water line Parkview			Flushed 10 min and sampled as per MOH	2023-01-28
2023-09-19	Low pressure to replace service water line Northwood			Flushed 10 min and sampled as per MOH	2023-09-21
2023-09-20	Loss of pressure due to replacing service line			Flushed and collected bacti sample	2023-09-22
2023-09-27	TC Present	NDOGN		resample	2023-09-30
2023-10-16	Hydrant Repair			Flush and sample	2023-10-19

For the operating year of 2023, the Nakina Drinking Water System was able to meet the demand of water use within the town without exceeding the Municipal Drinking Water License and Permit to Take Water.