



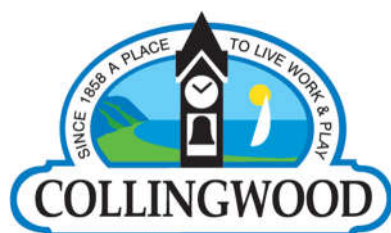
# Town of Collingwood

Drinking Water System  
2024 Annual Summary Report



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## Town of Collingwood Quality Management Policy

The Corporation of the Town of Collingwood owns and operates the Collingwood Drinking Water System and is committed to:

- Maintaining and continually improving our Quality Management System;
- Providing our consumers with a safe, reliable supply of potable drinking water;
- Meeting or exceeding all applicable legislation, regulations and other requirements;
- Communicating openly and effectively with employees, Council and the public; and
- Providing services in an environmentally responsible manner.

**Issue Date:** February 10, 2021 **Revision:** 4

*MSF-P-01*

## 1. Introduction

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This report has been prepared in accordance with the reporting requirements of the Safe Drinking Water Act 2002 O. Reg. 170/03, s.11 and Schedule 22.

This report is presented to the Council and posted to the Town's website on or before February 28, 2025. It is available on the Town of Collingwood website in PDF format at <https://www.collingwood.ca/water-services#:~:text=Water%20Quality%20%26%20Compliance>

A printed copy of this report will be provided free of charge when requested through the Town's Water and Wastewater Division:

Phone: (705) 445-1030

Email: [waterwastewater@collingwood.ca](mailto:waterwastewater@collingwood.ca)

### Drinking Water System Description

Drinking Water System Number	220001165
Drinking Water Works Permit	100-201 Issue 5 January 3, 2025
Municipal Drinking Water License (MDWL)	100-101 Issue 6 January 3, 2025
Permit to Take Water	0385-C8CNW8 issued November 4, 2021
Drinking Water System Name	Collingwood Drinking Water System
Drinking Water System Owner	Town of Collingwood
Drinking Water System Category	Large Municipal Residential
Water Treatment Subsystem Class	Class 2 Certificate No. 3009 issued November 15, 2005
Water Distribution Subsystem Class	Class 3 Certificate No. 277 issued May 22, 2019
Rated Capacity	31,140 m <sup>3</sup> /d
Period being Reported	January 1, 2024 to December 31, 2024

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Other Drinking Water Systems that receive drinking water from Raymond A. Barker Ultrafiltration Plant:

Drinking Water System Owner	Drinking Water System Number
Town of New Tecumseth	220001174
Town of the Blue Mountains	220001762
Township of Essa (Baxter)	260086866
Township of Essa (Angus)	260001026
Clearview Township (New Lowell)	220003706

A copy of this report will be provided to the drinking water system owners listed above.

The Collingwood Drinking Water System (CDWS) consists of the Raymond A Barker Water Treatment Plant (RAB) and the Collingwood Distribution System.

The RAB is an ultrafiltration membrane surface water treatment plant which was built in 1998. The shoreline RAB reconstruction started in 2023 and will nearly double the capacity of the plant to 59,000 m<sup>3</sup> per day. The expansion project will allow additional drinking water to be piped south and is anticipated to be completed by 2031. The raw water source is surface water from Georgian Bay, Lake Huron.

Surface water is taken from Nottawasaga Bay through a submerged inlet structure, approximately 765m offshore. Chlorine can be applied at the intake for zebra mussel control although this system is currently not in use to prevent chlorinated water being released back into the bay. Raw water flows by gravity through a 1067 mm diameter intake pipe and surge chamber into the raw water well. The raw water then flows to the membrane distribution channel in the main building.

The raw water is then distributed to six (6) filter basins or treatment trains. Five (5) trains are fed by gravity and house the 500 series ZeeWeed ultrafiltration membrane modules. One (1) train consists of 1000 series ZeeWeed ultrafiltration membrane and is fed with a low lift vertical turbine pump and a 5-micron strainer with automatic cleaner (Mobile Package Plant).

Each treatment train of the membrane filtration system has membrane modules and a permeate/backpulse pump. The permeate pump creates a slight vacuum which sucks clean (permeate) water through the membrane leaving any particulate matter greater than 0.035 microns in the process tank.

The permeate water is then disinfected using UV and chlorine. This water then flows into the two (2) 413 m<sup>3</sup> chlorine contact chambers (total volume 826 m<sup>3</sup>) prior to flowing by gravity into the clear well. The finished water is then pumped either directly into to the Collingwood Distribution System, which supplies water to the Town of Collingwood and the Town of the Blue

Mountains, or into the Regional Pipeline, which supplies water to the Town Collingwood and the Town of New Tecumseth.

The ultrafiltration membranes undergo a regular cleaning cycle that consists of reversing the flow of clean water stored in the backpulse tank back through the membranes under positive pressure. This process cleans the particles from the outer surface of the membranes and removes them to waste. This wastewater can be discharged to the sewer or returned to the lake. Air is also used to keep the membranes clear. Air is injected at the bottom of the tank and scours the membranes with air bubbles as they rise to the surface. This air scouring process also assists in keeping the concentrated solids in suspension, prior to reject.

The RAB is continually monitored 24 hours a day 365 days a year through the SCADA (Supervisory Control and Data Acquisition) system. The SCADA will send an alarm to an on-call operator if any part of the process requires attention.

**The Collingwood Distribution System** is comprised of approximately 172.62 km of concrete, ductile and cast iron watermains, ranging in size from 50 mm to 600 mm in diameter, 1187 fire hydrants and 2210 isolation valves in three pressure zones. There are also 84.8 km of private watermains with 246 private hydrants.

The Water Tower is an elevated storage tank with a capacity of 2250 m<sup>3</sup> supplying pressure zone 1. The Water Tower has re-chlorination capabilities, on-line monitoring and a generator for emergency backup power.

The Carmichael Reservoir is an in-ground reservoir and booster pumping station with a capacity of 6800 m<sup>3</sup> supplying pressure zone 1. The Carmichael Reservoir has re-chlorination capabilities, on-line monitoring and standby generator for emergency backup power.

The Davey Reservoir is an in-ground reservoir and booster pumping station with a capacity of 2500 m<sup>3</sup> supplying pressure zone 2. The Davey reservoir has re-chlorination capabilities, on-line monitoring and standby generator for emergency backup power.

The Osler Bluff Road booster pumping station helps to regulate the pressure in the west side of zone 2. This station has a standby generator for emergency backup power.

The Georgian Meadows booster pumping station helps to regulate the pressure in the Georgian Meadows subdivision.

### 1. Water Treatment Chemicals Used

Chlorine Gas  
Sodium Hypochlorite (12%)

## 2. Significant Expenses

The significant expenses in 2024 comprised of Installing required equipment, repairing required equipment, replacing required equipment, and studies and engineering.

Details of the significant expenses incurred to operate and maintain the drinking water system in 2024 are provided below.

Description	Amount
Water Treatment Plant Expansion	\$23,226,400.00
New Tecumseth High Lift Pumps Refurbishment	\$59,094.00
Water Equipment – Vehicles (New Backhoe)	\$234,000.00
New Fire Hydrants	\$22,245.00
Barlett and Princeton Shores Blvd Watermain Re-lining	\$2,015,000.00
Water Treatment Plant Hight Lift Pump VDF	\$19,722.00
Davey Reservoir VDF Replacement for High Lift Pump	\$20,777.00
New Water Meters	\$375,359.11
Water Tower Upgrades	\$166,700.00
New Chlorine Analyzer	\$8479.00
Carmichael Reservoir and Pumping Station Upgrades	\$2,310,600.00
Arch Flash Study-Water Facilities	\$44,930.00
Valves	\$13,359.00
Large Tools	\$11,181.80
<b>Total</b>	<b>\$28,527,846.91</b>

### 3. Notices Submitted to the Ministry of Environment, Conservation and Parks (MECP)

Subsection 18(1) of the Safe Drinking Water Act and/or Section 16-4 of Schedule 16 of O. Reg.170/03 requires notices on water incidents to be submitted to Spills Action Centre.

There were no adverse water incidents in 2024.

### 4. Microbiological Testing as per Schedule 10 of O. Reg. 170/03

Type	Number of Samples	Range E. Coli Results		Range of Total Coliform Results		Number of HPC Samples	Range of HPC Results	
Raw	52	0	3	0	40	n/a	n/a	n/a
Treated	52	0	0	0	0	52	0	30
Distribution	531	0	0	0	0	531	0	70

### 5. Operational Testing as per Schedule 7 of O. Reg. 170/03

Free chlorine residual and turbidity are monitored at various locations in the treatment and distribution system in accordance with Schedule 7 of O. Reg. 170/03.

Free chlorine residuals remained above the minimum concentration of 0.05 mg/L throughout the water distribution system in 2024.

Parameter	Number of Samples	Units	Min	Max	Avg
Turbidity - Raw	Continuous Monitoring	NTU	0.13	100	0.74
Turbidity - Treated	Continuous Monitoring	NTU	0.02	0.51	0.03
Free Chlorine - Treated	Continuous Monitoring	mg/L	1.19	2.28	1.55
Free Chlorine – Distribution Davey Reservoir	Continuous Monitoring	mg/L	0.91	2.89	1.30
Free Chlorine – Distribution - Tower	Continuous Monitoring	mg/L	0.67	2.98	1.40
Free Chlorine – Distribution Carmichael Reservoir	Continuous Monitoring	mg/L	0.80	2.38	1.36
Free Chlorine – Distribution Grab Samples	1356	mg/L	0.16	4.00	0.99

## 6. Additional Testing and Sampling

### Environmental Discharges

Condition 1.5 of Schedule C of the Town’s MDWL requires that environmental discharges be monitored for total chlorine and suspended solids.

The previous MDWL required that the total chlorine concentration in discharges to the environment have an annual running average of 0.02 mg/L. Regulatory relief as of the new issue of the MDWL in December 2024 allows the annual running average of 0.05 mg/L. The monthly running annual average of total Chlorine in 2024 was 0.04 mg/L, which is below allowed 0.05 mg/L. Section 14 provides further discussion about the rated treatment plant capacity and disinfection process.

The MDWL requires that suspended solids concentrations in discharges to the environment have an annual running average of 25 mg/L or less. The annual running average of suspended solids in 2024 ranged from 6.9 mg/L to 10.5 mg/L, which is well below the MDWL limit.

	<b>Total Chlorine (mg/L) <sup>a</sup></b>	<b>Suspended Solids (mg/L) <sup>a</sup></b>
<b>MDWL Limit</b>	<b>0.02<sup>1</sup></b>	<b>25</b>
<b>Jan</b>	<u>0.04</u>	9.0
<b>Feb</b>	<u>0.04</u>	7.4
<b>Mar</b>	<u>0.04</u>	7.1
<b>April</b>	<u>0.04</u>	6.9
<b>May</b>	<u>0.04</u>	7.2
<b>June</b>	<u>0.04</u>	9.7
<b>July</b>	<u>0.04</u>	10.3
<b>Aug</b>	<u>0.04</u>	9.7
<b>Sept</b>	<u>0.04</u>	11.1
<b>Oct</b>	<u>0.04</u>	10.5
<b>Nov</b>	<u>0.04</u>	10
<b>Dec</b>	0.04	9.2

<sup>1</sup> Regulatory relief as of December 2024 allows the annual running average limit of 0.05 mg/L

Underline – Exceedance of MDWL Limit

a – Running Annual Average Concentration

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Section 6 of Schedule C of the Town’s MDWL requires that a Harmful Algal Bloom monitoring plan be developed and implemented. As part of this plan, Microcystin testing is conducted between June 1 and October 31 to detect blue-green algal blooms in raw water samples. Microcystin was not detected in any of the raw water samples in 2024.

Parameter	Units	Jun 11, 2024	Jul 9, 2024	Aug 13, 2024	Sep 10, 2024	Oct 8, 2024	MAC	Exceedance
Microcystin	µg/L	<0.15	<0.15	<0.15	<0.15	<0.15	1.5	No

MAC – Maximum Acceptable Concentration for treated water

### 7. Summary of Schedule 13 Inorganic Parameters Tested

Schedule 13 of O. Reg. 170/03 requires that the owner and the operating authority of a large municipal residential system ensure that at least one water sample is collected every 12 months and is tested for the inorganic parameters listed in Schedule 23 of the Regulation if the drinking water system obtains water from a raw water supply that is surface water. If a test result for a parameter exceeds half of the drinking water quality standard prescribed for the parameter in the Ontario Drinking Water Quality Standards, the frequency of sampling and testing for that parameter needs to be increased so that at least one water sample is taken and tested every three months.

Treated drinking water samples were collected from RAB on February 6, 2024, and tested for the Schedule 23 inorganic parameters.

There were no exceedances of any Schedule 23 inorganic parameters in 2024, and all results were less than half of the maximum acceptable concentration for the specified parameters.

Parameter	Units	6-Feb-24	MAC	Exceedance
Antimony	µg/L	<0.5	6	No
Arsenic	µg/L	<1	10	No
Barium	µg/L	13	1000	No
Boron	µg/L	<2	5000	No
Cadmium	µg/L	<0.1	5	No
Chromium	µg/L	<1	50	No
Mercury	µg/L	<0.1	1	No
Selenium	µg/L	0.4	50	No
Uranium	µg/L	<1	20	No

MAC – Maximum Acceptable Concentration  
 AO – Aesthetic Objective  
 ND – Not Detected

## 8. Summary of Schedule 13 Organic Parameters Tested

Schedule 13 of O. Reg. 170/03 requires that the owner and the operating authority of a large municipal residential system ensure that at least one water sample is collected every 12 months and is tested for every organic parameter listed in Schedule 24 of the Regulation if the drinking water system obtains water from a raw water supply that is surface water. If a test result for a parameter exceeds half of the drinking water quality standard prescribed for the parameter in the Ontario Drinking Water Quality Standards, the frequency of sampling and testing for that parameter needs to be increased so that at least one water sample is taken and tested every three months.

Treated drinking water samples were collected from RAB on February 6 and tested for the Schedule 24 organic parameters.

There were no exceedances of any Schedule 24 organic parameters in 2024, and all results were less than half of the maximum acceptable concentration for the specified parameters.

Parameter	Units	6-Feb-24	MAC	Exceedance
Alachlor	µg/L	<0.239	5	No
Atrazine + N-dealkylated metabodies	µg/L	<0.5	5	No
Azinphos-methyl	µg/L	<0.194	20	No
Benzene	µg/L	<0.2	1	No
Benzo(a)pyrene	µg/L	<0.008	0.01	No
Bromoxynil	µg/L	<0.117	5	No
Carbaryl	µg/L	<2	90	No
Carbofuran	µg/L	<4	90	No
Carbon Tetrachloride	µg/L	<0.2	2	No
Chlorpyrifos	µg/L	<0.194	90	No
Diazinon	µg/L	<0.194	20	No
Dicamba	µg/L	<0.102	120	No
1,2-Dichlorobenzene	µg/L	<0.5	200	No
1,4-Dichlorobenzene	µg/L	<0.5	5	No
1,2-Dichloroethane	µg/L	<0.5	5	No
1,1-Dichloroethylene	µg/L	<0.5	14	No
Dichloromethane	µg/L	<5	50	No
2,4-Dichlorophenol	µg/L	<0.2	900	No
2,4-D	µg/L	<0.439	100	No
Diclofop-methyl	µg/L	<0.146	9	No
Dimethoate	µg/L	<0.194	20	No
Diquat	µg/L	<0.2	70	No
Diuron	µg/L	<10	150	No
Glyphosate	µg/L	<20	280	No
Malathion	µg/L	<0.194	190	No

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<b>2-Methyl-4-chlorophenoxyacetic acid (MCPA)</b>	µg/L	<7.32	<b>100</b>	<b>No</b>
<b>Metolachlor</b>	µg/L	<0.129	<b>50</b>	<b>No</b>
<b>Metribuzin</b>	µg/L	<0.129	<b>80</b>	<b>No</b>
<b>Monochlorobenzene</b>	µg/L	<0.5	<b>80</b>	<b>No</b>
<b>Paraquat</b>	µg/L	<0.2	<b>10</b>	<b>No</b>
<b>Pentachlorophenol</b>	µg/L	<0.3	<b>60</b>	<b>No</b>
<b>Phorate</b>	µg/L	<0.129	<b>2</b>	<b>No</b>
<b>Picloram</b>	µg/L	<0.102	<b>190</b>	<b>No</b>
<b>PCB</b>	µg/L	<0.06	<b>3</b>	<b>No</b>
<b>Prometryne</b>	µg/L	<0.0647	<b>1</b>	<b>No</b>
<b>Simazine</b>	µg/L	<0.194	<b>10</b>	<b>No</b>
<b>Terbufos</b>	µg/L	<0.129	<b>1</b>	<b>No</b>
<b>Tetrachloroethylene (perchloroethylene)</b>	µg/L	<0.5	<b>10</b>	<b>No</b>
<b>2,3,4,6-Tetrachlorophenol</b>	µg/L	<0.3	<b>100</b>	<b>No</b>
<b>Triallate</b>	µg/L	<0.129	<b>230</b>	<b>No</b>
<b>Trichloroethylene</b>	µg/L	<0.5	<b>5</b>	<b>No</b>
<b>2,4,6, -Trichlorophenol</b>	µg/L	<0.2	<b>5</b>	<b>No</b>
<b>Trifluralin</b>	µg/L	<0.129	<b>45</b>	<b>No</b>
<b>Vinyl Chloride</b>	µg/L	<0.1	<b>1</b>	<b>No</b>

MAC – Maximum Acceptable Concentration

AO – Aesthetic Objective

ND – Not Detected.

### 9. Other Schedule 13 Water Quality Testing

Schedule 13 of O. Reg. 170/03 requires that the owner and the operating authority of a large municipal residential system ensure that:

- at least one water sample is taken every three months and tested for nitrate and nitrite
- at least one water sample is taken every 60 months and tested for sodium
- at least one water sample is taken at least once every 60 months and tested for fluoride
- at least one distribution sample is taken in each calendar quarter and tested for halo acetic acids (HAAs)
- at least one distribution sample is taken in each calendar quarter and tested for trihalomethanes (THMs)

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Parameter	Units	Feb 6, 2024	May 7, 2024	Aug 6, 2024	Nov 5, 2024	MAC	Exceedance
Nitrite	mg/L	<0.05	<0.05	<0.05	<0.05	1.0	No
Nitrate	mg/L	0.23	0.24	0.21	0.27	10.0	No
Fluoride	mg/L		<0.05	-	-	1.5	No
Sodium	mg/L	-	4.58	-	-	20 <sup>a</sup>	n/a

MAC – Maximum Acceptable Concentration

a – Aesthetic Objective

Parameter	Units	1 <sup>st</sup> Quarter <sup>a</sup>	2 <sup>nd</sup> Quarter <sup>a</sup>	3 <sup>rd</sup> Quarter <sup>a</sup>	4 <sup>th</sup> Quarter <sup>a</sup>	MAC <sup>a</sup>	Exceedance
HAAs	µg/L	24.8	24.8	26.8	24.3	80	No
THMs	µg/L	28.3	29.8	31.8	35.3	100	No

MAC – Maximum Acceptable Concentration

a – Running Annual Average Concentration

### 10. Schedule 15 Water Quality Testing:

Schedule 15 of O. Reg. 170/03 requires that the owner and the operating authority of a large municipal residential system ensure that samples are collected from the distribution system between December 15 and April 15 and between June 15 and October 15, and tested for:

- Total alkalinity and pH each year; and
- Lead every third 12-month period.

Lead samples were collected from the Collingwood distribution system in 2024. The next round of lead sampling is required in 2027. The pH sample result on February 6, 2024 slightly exceeded the operational objective of 8.5 at 43 Stuart Road with the value of 9.4, but it was met on August 2024 with the value of 7.3.

Parameter	Units	2024	Feb 6, 2024	Aug 6, 2024	MAC	OG	Exceedance
Lead	µg/L	<0.1 – 0.4	<0.1 – 0.3	<0.1 – 0.4	10	-	No
Alkalinity	mg/L	71-78	75-78	71-75	-	30-500	No
pH	-	7.3-9.4	8-9.4	7.3-8.5	-	6.5-8.5	No

MAC – Maximum Acceptable Concentration

OG – Operational Guideline

## 11. Inorganic or Organic Parameter(s) Exceeding Half the Standard

The Standard for Organic and inorganic parameter(s), from Schedule 23 and 24, that exceeded half the standard prescribed in Schedule 2 of O. Reg. 169/03 Ontario Drinking Water Quality Standards. The table below demonstrates that none of the parameters exceeded half the standard.

Parameter	Result Value	Unit of Measure	Date of Sample
None	n/a	n/a	n/a

## 12. Incidents of Regulatory Non-Compliance

The Ministry of the Environment, Conservation and Parks (MECP) annual inspection was completed in September 2024. Two non-compliances were noted. There were monthly non-compliance results regarding the total chlorine concentrations in discharges from the water treatment plant to the environment. The MDWL required that the total chlorine concentrations in these discharges have an annual running average of 0.02 mg/L each month. The monthly total chlorine concentrations in these discharges were steady at 0.04 mg/L in 2024. Please see Section 6 for the results. The design of the Treatment Plant is not presently capable of meeting the annual average total chlorine residual limit of 0.02 mg/L. The Town of Collingwood received regulatory relief in December 2024 from the MECP with an annual running average limit of 0.05 mg/L until the new plant with better treatment capability is commissioned.

The second non-compliance was noted since notification to the Ministry on the changes to the Drinking Water System was not made within 10 days as required by the Subsection 10.1(3) of O. Reg. 170/03. The recently added ultraviolet disinfection equipment was added to the treatment component's section and Town submitted an updated profile information form to the Ministry in July 2024.

### Findings:

Raw water enters the membrane filter basins and is drawn through the membrane. Concentrate pumps continuously draw unfiltered water out of the filter basins to remove particles that are too large to flow through the membrane. Chlorine is introduced into the raw water during the backpulse cycle when chlorinated water flows in reverse direction through the membrane as part of the cleaning process. A portion of this water goes to the sewer, but due to limited sewer capacity at the treatment plant, a larger portion is returned to Nottawasaga Bay.

Total chlorine testing of the raw water waste stream became a requirement in April 2021 under the updated Municipal Drinking Water License. As mentioned above, the existing facility design is not capable of meeting this requirement.

Prior to this requirement coming into effect, chlorine was also introduced into the raw water at the intake structure, where it was used to control the zebra mussel population. This system has

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not been used since 2021 to minimize chlorine residual levels in the filter basins. The annual intake inspection found 95% coverage of zebra mussels on the intake structure, and they were physically removed by a qualified contractor. Subsequent manual cleanings will be completed as needed based on the findings of future annual intake inspections.

The samples of total chlorine are grab samples taken with a colorimeter. The colorimeter is an industry standard for measuring chlorine samples, but 0.02 mg/L should be considered the detection limit.

The Town is currently working towards an expansion of the existing water treatment plant that will include a de-chlorination process for the raw water waste stream.

In accordance with the requirements of the Municipal Drinking Water License, the exceedance of total chlorine in the raw water waste stream is reported in writing to the local Ministry of the Environment, Conservation and Parks Office each month. The Ministry Office has accepted the reports with no further actions required.

Based on the Ministry established risk rating methodology the Collingwood Drinking Water System received a 99.24% rating for 2024.

### 13. Raw Water Taking

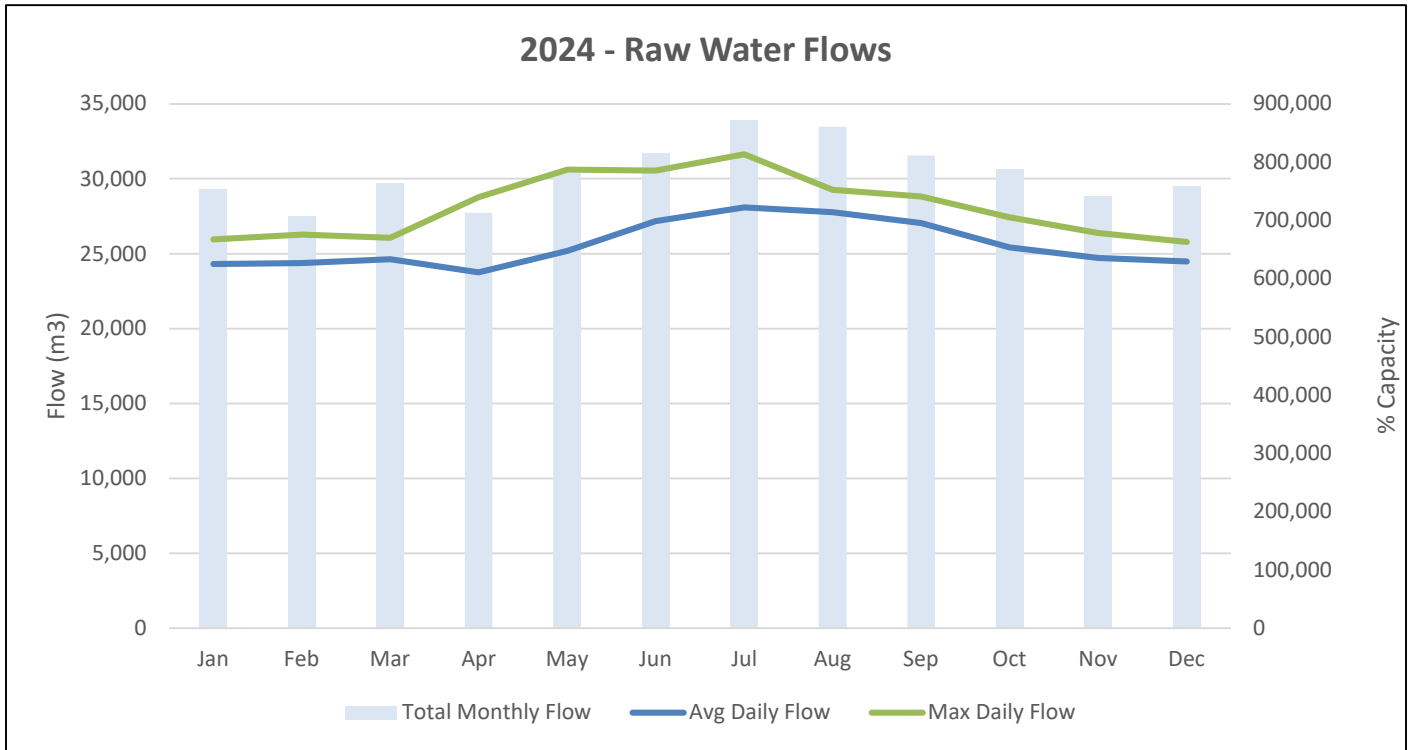
The raw water supply is more than adequate to provide a reliable source of potable water to meet the demands of the system. The source is Nottawasaga Bay, part of Lake Huron in the Georgian Bay region.

Throughout 2024, all water takings at the Collingwood Water Treatment Plant were within the maximum daily permitted rate of 68,250 m<sup>3</sup>, as established by Permit to Take Water (PTTW) 0385-C8CNW8.

2024 Raw Water Taking Summary	
Total Annual Taking (m <sup>3</sup> )	9,364,127
Average Daily Taking (m <sup>3</sup> /d)	25,577
Minimum Daily Taking (m <sup>3</sup> /d)	11,425
Maximum Daily Taking (m <sup>3</sup> /d)	31,634
Maximum Daily Taking (% Capacity)	46%

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Raw Water Taking					
Month	Monthly	Daily Avg	Min Day	Max Day	Max Day
	Total m <sup>3</sup>	m <sup>3</sup>	m <sup>3</sup>	m <sup>3</sup>	Capacity
January	753,604	24,310	22,791	25,958	38%
February	707,613	24,370	18,331	26,263	38%
March	763,397	24,626	22,659	26,050	38%
April	712,847	23,762	11,425	28,777	42%
May	780,976	25,193	23,521	30,615	45%
June	815,062	27,169	23,294	30,552	45%
July	870,955	28,095	25,714	31,634	46%
August	860,721	27,765	25,562	29,257	43%
September	810,956	27,032	24,596	28,809	42%
October	787,618	25,407	23,639	27,420	40%
November	741,412	24,714	22,189	26,376	39%
December	758,966	24,483	19,656	25,784	38%



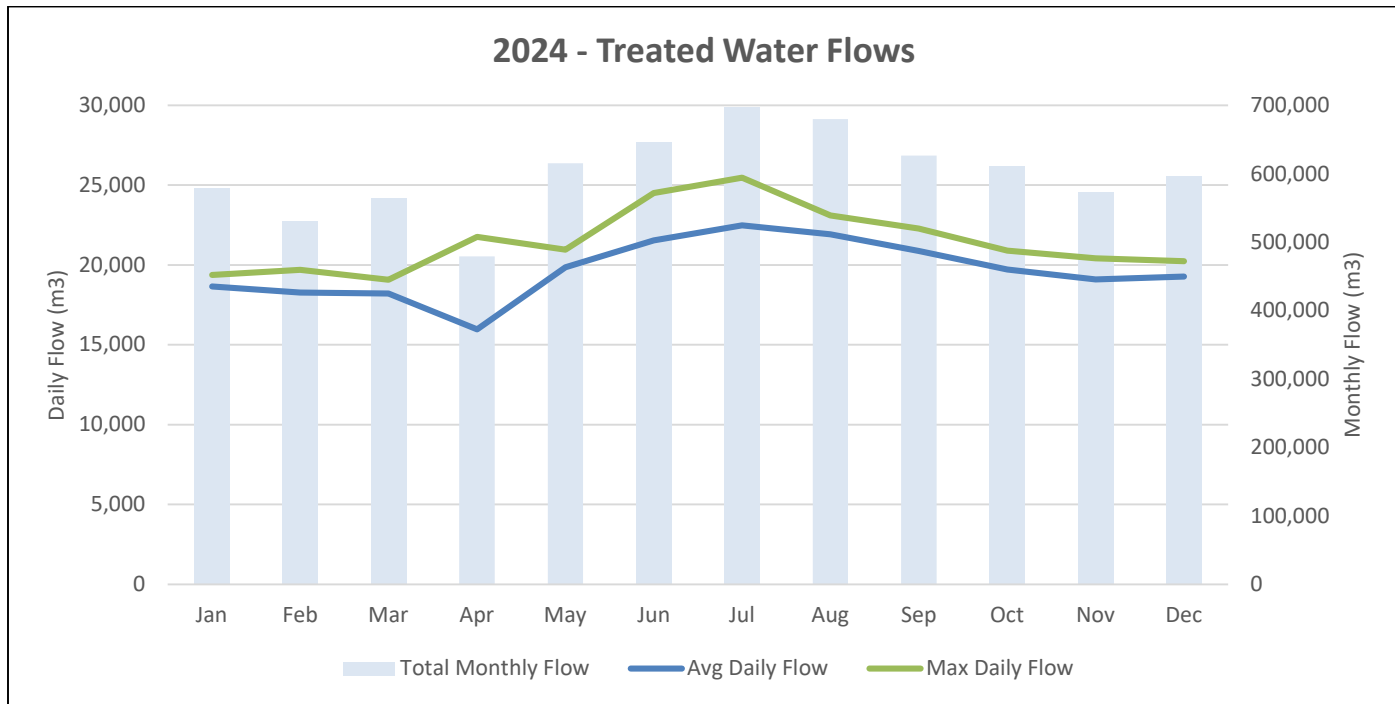
## 14. Treated Water Production Rates

Schedule 22 of O.Reg. 170/03 requires the owner to provide a summary of the quantities and flow rates of water supplied for the reporting period, and a comparison of these flows to the rated capacity and flow rates of the system's approval, drinking water works permit or municipal drinking water licence.

The rated treatment capacity for the Collingwood Water Treatment Plant is 31,140 m<sup>3</sup>/day. In the past this rated treatment capacity was reduced to 24,019 m<sup>3</sup>/d during winter months due to operational limitations with the primary disinfection process (i.e. chlorine contact tanks). The Town installed ultraviolet (UV) reactors which resolved the winter limitations associated with achieving primary disinfection requirements with chlorination only.

In 2024, treated water production rates were as high as 25,476 m<sup>3</sup>/d (82% of the treatment capacity). 2024 production rates are comparable to production rates in the previous five years.

Treated Water Flows					
Month	Monthly Total (m <sup>3</sup> )	Daily Avg (m <sup>3</sup> )	Max Day (m <sup>3</sup> )	Treatment Capacity (m <sup>3</sup> /d)	% Rated Capacity
January	578,187	18,651	19,373	31,140	62%
February	530,051	18,278	19,685	31,140	63%
March	564,370	18,205	19,087	31,140	61%
April	479,246	15,975	21,764	31,140	70%
May	615,219	19,846	20,952	31,140	67%
June	646,157	21,539	24,506	31,140	79%
July	697,211	22,491	25,476	31,140	82%
August	679,659	21,924	23,103	31,140	74%
September	626,539	20,885	22,287	31,140	72%
October	610,985	19,709	20,893	31,140	67%
November	572,705	19,090	20,414	31,140	66%
December	597,183	19,264	20,238	31,140	65%



### 15. Conclusion

The Town of Collingwood continues to provide a safe, reliable source of potable water to the consumers and continues to meet or exceed all legislative requirements.