

Township of Oro-Medonte Drinking Water Compliance Report 2024

Sugarbush Drinking Water System

Annual and Municipal Summary Reports

(Prepared in accordance with Section 11 and Schedule 22 of Ontario Regulation 170/03)



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DRINKING WATER COMPLIANCE REPORT 2024

1 Introduction

The Township of Oro-Medonte has prepared this report to satisfy the requirements of Section 11: Annual Report and Schedule 22: Summary Reports for Municipalities of Ontario Regulation (O.Reg.) 170/03.

This report covers the period of January 1 to December 31, 2024, and applies to the following municipally owned and operated drinking water system:

Sugarbush Drinking Water System (DWS #220001518)

2 Reporting Requirements

2.1 Requirements under Section 11: Annual Report

Section 11 of O.Reg 170/03 requires that the Owner of a drinking water system shall ensure that an annual report, covering the period from January 1 to December 31 in a year, be prepared no later than February 28 of the following year. The report must include the following information relating to the period covered by the report:

- Include a statement of where a report prepared under Schedule 22 will be available for inspection by any member of the public during normal business hours without charge;
- Contain a brief description of the drinking water system, including a list of water treatment chemicals used by the system;
- Describe any major expenses incurred to install, repair or replace required equipment;
- Summarize any reports made to the Ministry of Environment, Conservation and Parks (MECP) for Adverse Water Quality Incidents (AWQIs);
- Summarize the results of tests required under O.Reg. 170/03, or under an approval, municipal drinking water licence or order, including an Ontario Water Resources Act order, if tests required under this Regulation in respect of a parameter were not required during that period, summarize the most recent results of tests of that parameter; and,
- Describe any corrective actions taken.



2.2 Requirements under Schedule 22: Summary Report for Municipalities

Schedule 22 of O.Reg 170/03 requires that the report be prepared no later than March 31 of the following year, and include the following information relating to the period covered by the report:

- 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 with specifics to the duration and measures that were taken to correct the
 failure.
- The report must also include the following information to enable the Owner of the system to assess the capability of the system to meet existing and planned uses of the system:
 - Summarize the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows; and,
 - Compare the aforementioned summary of quantities and flow rates to the rated capacity and flow rates approved in the system's approval, drinking water works permit or municipal drinking water licence.

3 Compliance Reporting Requirement

3.1 Availability of the Drinking Water Compliance Report

In accordance with Section 11 of O.Reg. 170/03, a copy of the report is available to the public, free of charge from the following outlets:

- Township of Oro-Medonte's website (www.oro-medonte.ca); and,
- Public request at the Municipal Office, located at 148 Line 7 South, Oro-Medonte.

The public is advised of the report's availability and how to obtain a copy, without charge, on the Township of Oro-Medonte's website through annual public reporting to Council and on the drinking water dedicated landing pages.



4 Sugarbush Drinking Water System



SUGARBUSH

Drinking Water System Number: 220001518
Raw Water Source: Groundwater

Drinking Water System Category: Large Municipal Residential

Drinking Water System Classification: Water Supply & Distribution Class 2

Population Served: Approx. 1,628 persons

4.1 Municipal Drinking Water System Description

The Sugarbush Drinking Water System (DWS # 220001518) facilities are located in Oro-Medonte at 10 Huron Woods Drive, Concession 6 (Well 1); 3310 Line 6 North, Concession 6 (Well 2); 34 Diamond Valley, Concession 7 (Well 3); 67 Huron Woods (Booster Station); and 6 Oneida Ave (Reservoir). The facilities are owned and operated by the Corporation of the Township of Oro-Medonte in accordance with its specific MDWL, DWWP, PTTW and all other applicable legislation.

This drinking water system consists of three (3) production wells in separate pumphouses, process piping, one (1) booster pumping station and two (2) reservoirs. Raw water is conveyed to the pumphouse, where treatment includes chlorination with sodium hypochlorite. Primary disinfection is achieved through the CT disinfection concept using the combination of a disinfectant residual concentration and effective contact time by means of contact mains at Well 1 and Well 2, and an in-ground, dual-celled 186 m³ reservoir for Well 3. There are two (2) separate pressure zones in the distribution system: Oneida Ave Reservoir and the booster station with three (3) high lift pumps service Zone 1; and, two (2) high lift and two (2) fire pumps located at Well 3 supply treated water to the Zone 2 distribution system based on system demand.

The distribution system consists of approximately 19.2 km of watermain, (ranging in diameter from 50 to 250mm), one-hundred and six (100) valves, eighty-three (81) hydrants, and thirteen (13) sample stations servicing approximately 465 detached residential units.

Monitoring of the drinking water system's operation is 24 hours a day, seven days a week continuously through a computerized SCADA system, equipped with alarming for a certified water operator dispatch when operational issues arise. Emergency backup

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power is fulfilled through a 25 kW natural gas generator (located at booster station) and a 125 kW natural gas generator (located at Well 3).

4.2 Water Treatment Chemicals

The following water treatment chemicals were utilized during the reporting period:

Sodium Hypochlorite (12%)

4.3 Major Expenses Incurred within the Drinking Water System

The Township of Oro-Medonte has determined expenses over \$25,000 to be considered a 'major expense'. A brief summary of the major or notable expenses incurred during the reporting period to install, repair or replace required equipment, and the value of each, is included in the Table below.

Table 1: Major or Notable Expense Summary

Expense	Cost Incurred
Sugarbush Distribution System Upgrades	\$1.2M

4.4 Ontario Regulation (O.Reg) 170/03: Operational Checks, Sampling and Testing

O.Reg. 170/03 outlines specific operational checks and sampling requirements for drinking water systems, while O.Reg. 169/03 specifies drinking water quality standards and maximum allowable concentrations of analytical parameters.

During the reporting period, the required operational checks were completed and drinking water samples were collected in accordance with O.Reg. 170/03. All accredited laboratory results for analyzed samples met the requirements and did not exceed the applicable standards stipulated in O.Reg. 169/03.

No additional testing and sampling was required in 2024 due to any requirements of an approval, order or other legal instruments.

4.4.1 Schedule 7 Operational Checks (O.Reg 170/03)

Operational checks of measurements of free chlorine residuals and raw water turbidity were conducted in accordance with the large municipal residential drinking water system requirements as prescribed by O.Reg.170/03, Schedule 7. No data is reported for fluoride as the Township of Oro-Medonte does not fluoridate any of its drinking water systems.



Table 2: Schedule 7 - Operational Checks Summary

Parameter	Sample Count	Range of Results (min/avg/max)
Raw Turbidity (NTU) – Well 1	12	0.07/0.13/0.19
Raw Turbidity (NTU) – Well 2	12	0.09/0.14/0.29
Raw Turbidity (NTU) – Well 3	12	0.06/0.13/0.23
Chlorine (mg/L) – Well 1	8760*	0.00/1.30/1.97 **
Chlorine (mg/L) – Well 2	8760*	0.83/1.32/2.37**
Chlorine (mg/L) – Well 3	8760*	1.01/1.27/1.49**
Fluoride	N/A	N/A

^{* 8760} is the number of samples used for continuous monitoring.

4.4.2 Schedule 10: Microbiological Sampling and Testing (O.Reg 170/03)

Raw, treated and distribution water samples were collected and analyzed for microbiological parameters specified in Section 10-2, 10-3, and 10-4 of O.Reg. 170/03. All accredited laboratory results for samples analyzed for microbiological parameters met the requirements and did not exceed the applicable standards stipulated in O.Reg. 169/03, unless otherwise stated in Section 4.5.1 'Schedule 16: Reporting of Adverse Test Results and Other Problems' of this report.

Raw, treated and distribution drinking water samples were analyzed for bacteriological health-related parameters including E.coli, total coliform, background bacteria (background,) and heterotrophic plate count (HPC). The presence of HPC and background bacteria when measured in counts greater than 200 CFU per 100 mL, may indicate a deterioration in water quality within the drinking water system and initiate additional maintenance activities, such as flushing. The results for microbiological and bacteriological parameters during this reporting period are summarized on the following page for reference.

^{**} The range of chlorine results incorporates maintenance activities and operational testing. It does not necessarily reflect residuals within the distribution system.



Table 3: Schedule 10 Microbiological Sampling and Testing Summary

Source		Sample Count	E.coli (CFU/100 mL)	Total Coliform (CFU/100 mL)	Background (CFU/100 mL)	HPC (CFU/1 mL)
			(min-max)	(min-max)	(min-max)	(min-max)
	Well 1	53	0 - 0	0 - 0	0 – 0	N/A
Raw	Well 2	53	0 - 0	0 - 0	0 - 0	N/A
	Well 3	53	0 - 0	0 - 0	0 – 0	N/A
	Well 1	53	0 – 0	0 – 0	0 – 0	<10 – 10
Treated	Well 2	53	0 - 0	0 - 0	0 – 0	<10 – 30
	Well 3	53	0 - 0	0 - 0	0 – 0	<10 – 10
Distribution		167	0 - 0	0 - 0	0 – 0	<10 – 230

Note: Total coliform results in raw drinking water samples are prior to treatment.

4.4.3 Schedule 13: Chemical Testing (O.Reg 170/03)

Drinking water samples were collected from the drinking water system and analyzed for all parameters in accordance with O.Reg. 170/03, Schedule 13. All samples analyzed met the requirements and did not exceed the applicable standards stipulated in O.Reg. 169/03.

If chemical analysis under O.Reg. 170/03 was not required during this reporting period; the most recent analytical results for that parameter have been summarized in the tables below for reference, in accordance with O.Reg. 170/03, Section 11.

Under Section 13-2 and 13-4, sampling requirements for inorganics and organics are once every 36 months and tested for every parameter listed in O.Reg 170/03, Schedules 23 and 24. Results indicated that all parameters were below half the maximum allowable concentration in Schedule 2 in the Ontario Drinking Water Quality Standards. The most recent chemical parameter results are summarized in the table on the following page for reference.

Table 4: Schedule 23 Inorganic and Schedule 24 Organic Results Summary

Parameter	Date		Results		Unito	Exceedance				
Parameter	Sampled	Well 1	Well 2	Well 3	Units	Exceedance				
Schedule 23: Inorgani	Schedule 23: Inorganics									
Antimony	2024/07/24	0.6 <mdl< td=""><td>0.6 <mdl< td=""><td>0.6 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.6 <mdl< td=""><td>0.6 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.6 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No				
Arsenic	2024/07/24	0.2 <mdl< td=""><td>0.2 <mdl< td=""><td>0.2 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.2 <mdl< td=""><td>0.2 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.2 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No				
Barium	2024/07/24	48.1	38.9	50.1	ug/L	No				
Boron	2024/07/24	6	5	6	ug/L	No				
Cadmium	2024/07/24	0.003 <mdl< td=""><td>0.003 <mdl< td=""><td>0.003 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.003 <mdl< td=""><td>0.003 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.003 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No				
Chromium	2024/07/24	0.76	1.16	1.07	ug/L	No				
Mercury	2024/07/24	0.01 <mdl< td=""><td>0.01 <mdl< td=""><td>0.01 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.01 <mdl< td=""><td>0.01 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.01 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No				
Selenium	2024/07/24	0.12	0.13	0.11	ug/L	No				
Uranium	2024/07/24	0.757	0.344	0.373	ug/L	No				
Schedule 24: Organics	Schedule 24: Organics									
Alachlor	2024/07/24	0.02 <mdl< td=""><td>0.02 <mdl< td=""><td>0.02 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.02 <mdl< td=""><td>0.02 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.02 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No				

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Table 4: Schedule 23 Inorganic & Schedule 24 Organic Results Summary (continued)

Atrazine	2024/07/24	0.01 <mdl< td=""><td>0.01 <mdl< td=""><td>0.01 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.01 <mdl< td=""><td>0.01 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.01 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No
Atrazine + N-						
dealkylated	2024/07/24	0.01 <mdl< td=""><td>0.01 <mdl< td=""><td>0.04</td><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.01 <mdl< td=""><td>0.04</td><td>ug/L</td><td>No</td></mdl<>	0.04	ug/L	No
metabolites						
Azinphos-methyl	2024/07/24	0.05 <mdl< td=""><td>0.05 <mdl< td=""><td>0.05 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.05 <mdl< td=""><td>0.05 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.05 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No
Benzene	2024/07/24	0.32 <mdl< td=""><td>0.32 <mdl< td=""><td>0.32 <mdl< td=""><td></td><td></td></mdl<></td></mdl<></td></mdl<>	0.32 <mdl< td=""><td>0.32 <mdl< td=""><td></td><td></td></mdl<></td></mdl<>	0.32 <mdl< td=""><td></td><td></td></mdl<>		
Benzo(a)pyrene	2024/07/24	0.004 <mdl< td=""><td>0.004 <mdl< td=""><td>0.004 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.004 <mdl< td=""><td>0.004 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.004 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No
Bromoxynil	2024/07/24	0.33 <mdl< td=""><td>0.33 <mdl< td=""><td>0.33 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.33 <mdl< td=""><td>0.33 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.33 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No
Carbaryl	2024/07/24	0.05 <mdl< td=""><td>0.05 <mdl< td=""><td>0.05 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.05 <mdl< td=""><td>0.05 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.05 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No
Carbofuran	2024/07/24	0.01 <mdl< td=""><td>0.01 <mdl< td=""><td>0.01 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.01 <mdl< td=""><td>0.01 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.01 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No
Carbon tetrachloride	2024/07/24	0.17 <mdl< td=""><td>0.17 <mdl< td=""><td>0.17 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.17 <mdl< td=""><td>0.17 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.17 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No
Chlorpyrifos	2024/07/24	0.02 <mdl< td=""><td>0.02 <mdl< td=""><td>0.02 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.02 <mdl< td=""><td>0.02 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.02 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No
Desethyl atrazine	2024/07/24	0.01 <mdl< td=""><td>0.01 <mdl< td=""><td>0.04</td><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.01 <mdl< td=""><td>0.04</td><td>ug/L</td><td>No</td></mdl<>	0.04	ug/L	No
Diazinon	2024/07/24	0.02 <mdl< td=""><td>0.02 <mdl< td=""><td>0.02 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.02 <mdl< td=""><td>0.02 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.02 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No
Dicamba	2024/07/24	0.20 <mdl< td=""><td>0.20 <mdl< td=""><td>0.20 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.20 <mdl< td=""><td>0.20 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.20 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No
1,2-Dichlorobenzene	2024/07/24	0.41 <mdl< td=""><td>0.41 <mdl< td=""><td>0.41 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.41 <mdl< td=""><td>0.41 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.41 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No
1,4-Dichlorobenzene	2024/07/24	0.36 <mdl< td=""><td>0.36 <mdl< td=""><td>0.36 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.36 <mdl< td=""><td>0.36 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.36 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No
1,2-Dichloroethane	2024/07/24	0.35 <mdl< td=""><td>0.35 <mdl< td=""><td>0.35 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.35 <mdl< td=""><td>0.35 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.35 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No
1,1-Dichloroethylene					_	
(vinylidene chloride)	2024/07/24	0.33 <mdl< td=""><td>0.33 <mdl< td=""><td>0.33 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.33 <mdl< td=""><td>0.33 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.33 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No
Dichloromethane	2024/07/24	0.35 <mdl< td=""><td>0.35 <mdl< td=""><td>0.35 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.35 <mdl< td=""><td>0.35 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.35 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No
2,4-dichlorophenol	2024/07/24	0.15 <mdl< td=""><td>0.15 <mdl< td=""><td>0.15 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.15 <mdl< td=""><td>0.15 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.15 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No
2,4-	2024/01/24	0.10 VIVIDE	0.10 VIVIDE	0.10 NIDE	ug/L	110
dichlorophenoxyacetic	2024/07/24	0.19 <mdl< td=""><td>0.19 <mdl< td=""><td>0.19 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.19 <mdl< td=""><td>0.19 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.19 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No
acid (2,4-D)	2024/01/24	0.10 VIVIDE	0.15 VIVIDE	0.15 \WDL	ug/L	140
Diclofop-methyl	2024/07/24	0.40 <mdl< td=""><td>0.40 <mdl< td=""><td>0.40 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.40 <mdl< td=""><td>0.40 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.40 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No
Dimethoate	2024/07/24	0.06 <mdl< td=""><td>0.06 <mdl< td=""><td>0.06 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.06 <mdl< td=""><td>0.06 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.06 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No
Diquat	2024/07/24	1 <mdl< td=""><td>1 <mdl< td=""><td>1 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	1 <mdl< td=""><td>1 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	1 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No
Diuron	2024/07/24	0.03 <mdl< td=""><td>0.03 <mdl< td=""><td>0.03 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.03 <mdl< td=""><td>0.03 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.03 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No
Glyphosate	2024/07/24	1 <mdl< td=""><td>1 <mdl< td=""><td>1 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	1 <mdl< td=""><td>1 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	1 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No
Malathion	2024/07/24	0.02 <mdl< td=""><td>0.02 <mdl< td=""><td>0.02 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.02 <mdl< td=""><td>0.02 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.02 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No
		0.00012	0.00012	0.00012		
MCPA	2024/07/24	<mdl< td=""><td><mdl< td=""><td><mdl< td=""><td>mg/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	<mdl< td=""><td><mdl< td=""><td>mg/L</td><td>No</td></mdl<></td></mdl<>	<mdl< td=""><td>mg/L</td><td>No</td></mdl<>	mg/L	No
Metolachlor	2024/07/24	0.01 <mdl< td=""><td>0.01 <mdl< td=""><td>0.01 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.01 <mdl< td=""><td>0.01 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.01 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No
Metribuzin	2024/07/24	0.02 <mdl< td=""><td>0.02 <mdl< td=""><td>0.02 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.02 <mdl< td=""><td>0.02 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.02 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No
Monochlorobenzene	2024/07/24	0.3 <mdl< td=""><td>0.3 <mdl< td=""><td>0.3 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.3 <mdl< td=""><td>0.3 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.3 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No
Paraquat	2024/07/24	1 <mdl< td=""><td>1 <mdl< td=""><td>1 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	1 <mdl< td=""><td>1 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	1 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No
Pentachlorophenol	2024/07/24	0.15 <mdl< td=""><td>0.15 <mdl< td=""><td>0.15 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.15 <mdl< td=""><td>0.15 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.15 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No
Phorate	2024/07/24	0.01 <mdl< td=""><td>0.13 < MDL</td><td>0.13 < MDL</td><td>ug/L</td><td>No</td></mdl<>	0.13 < MDL	0.13 < MDL	ug/L	No
Picloram	2024/07/24	1 <mdl< td=""><td>1 <mdl< td=""><td>1 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	1 <mdl< td=""><td>1 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	1 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No
Polychlorinated	2027/01/24	I VIVIDE	I VIVIDE	I VIVIDE	ug/L	140
Biphenyls (PCBs) -	2024/07/24	0.04 <mdl< td=""><td>0.04 <mdl< td=""><td>0.04 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.04 <mdl< td=""><td>0.04 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.04 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No
Total	2027/01/24	U.UT VIVIDE	U.UT VIVIDE	U.UT NIDL	ug/L	140
Prometryne	2024/07/24	0.03 <mdl< td=""><td>0.03 <mdl< td=""><td>0.03 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.03 <mdl< td=""><td>0.03 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.03 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No
Simazine	2024/07/24	0.03 <mdl< td=""><td>0.03 <mdl< td=""><td>0.03 < MDL</td><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.03 <mdl< td=""><td>0.03 < MDL</td><td>ug/L</td><td>No</td></mdl<>	0.03 < MDL	ug/L	No
Terbufos	2024/07/24	0.01 <mdl< td=""><td>0.01 <mdl< td=""><td>0.01 <mdl< td=""><td>ug/L ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.01 <mdl< td=""><td>0.01 <mdl< td=""><td>ug/L ug/L</td><td>No</td></mdl<></td></mdl<>	0.01 <mdl< td=""><td>ug/L ug/L</td><td>No</td></mdl<>	ug/L ug/L	No
Tetrachloroethylene			U.UT SIVIDE	U.UT SIVIDE	ug/L	INU
(perchloroethylene)	2024/07/24	0.35 <mdl< td=""><td>0.35 <mdl< td=""><td>0.35 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.35 <mdl< td=""><td>0.35 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.35 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No
2,3,4,6-						
tetrachlorophenol	2024/07/24	0.20 <mdl< td=""><td>0.20 <mdl< td=""><td>0.20 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.20 <mdl< td=""><td>0.20 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.20 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No
tetracritorophenol						

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Table 4: Schedule 23 Inorganic & Schedule 24 Organic Results Summary (continued)

Triallate	2024/07/24	0.01 <mdl< th=""><th>0.01 <mdl< th=""><th>0.01 <mdl< th=""><th>ug/L</th><th>No</th></mdl<></th></mdl<></th></mdl<>	0.01 <mdl< th=""><th>0.01 <mdl< th=""><th>ug/L</th><th>No</th></mdl<></th></mdl<>	0.01 <mdl< th=""><th>ug/L</th><th>No</th></mdl<>	ug/L	No
Trichloroethylene	2024/07/24	0.44 <mdl< td=""><td>0.44 <mdl< td=""><td>0.44 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.44 <mdl< td=""><td>0.44 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.44 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No
2,4,6-trichlorophenol	2024/07/24	0.25 <mdl< td=""><td>0.25 <mdl< td=""><td>0.25 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.25 <mdl< td=""><td>0.25 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.25 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No
Trifluralin	2024/07/24	0.02 <mdl< td=""><td>0.02 <mdl< td=""><td>0.02 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.02 <mdl< td=""><td>0.02 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.02 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No
Vinyl Chloride	2024/07/24	0.17 <mdl< td=""><td>0.17 <mdl< td=""><td>0.17 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<></td></mdl<>	0.17 <mdl< td=""><td>0.17 <mdl< td=""><td>ug/L</td><td>No</td></mdl<></td></mdl<>	0.17 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No

Note: '<MDL' indicates the result was below the detection limit for the parameter's analysis method used by the external lab. Results for Sugarbush Wells 1, 2, and 3 were all under method detection limits unless otherwise noted.

Under Section 13-6 and 13-6.1, sampling requirements for trihalomethanes (THMs) and haloacetic acids (HAAs) are quarterly and expressed as a running annual average (RAA), which is updated continually as quarterly sample results are received.

Regulatory reporting requirements for HAAs and its associated calculated RAA of quarterly results commenced January 1, 2020, although Environmental Services has been actively calculating RAA since 2017 as a best management practice to evaluate the status of the parameter within the drinking water system. The 2024 THMs and HAAs results are summarized in the table below.

Table 5: Trihalomethanes and Haloacetic Acids Results Summary

Parameter	Running Annual Average (RAA)	Unit	Exceedance
Trihalomethanes (THMs)	2.20	ug/L	No
Haloacetic Acid (HAAs)	5.3 <mdl< td=""><td>ug/L</td><td>No</td></mdl<>	ug/L	No

Note: '<MDL' indicates the result was below the detection limit for the parameter's analysis method used by the external lab.

Under Section 13-7, sampling requirements for nitrate and nitrite are quarterly. The 2024 nitrate and nitrite results are summarized in the table below for reference.

Table 6: Nitrate and Nitrite Results Summary

Parameter	Date Sampled	Results	Unit	Exceedance
	2024/02/15	Well 1 – 0.445 Well 2 – 0.737 Well 3 – 0.931	mg/L	No
Nitrate	2024/05/29	Well 1 – 0.429 Well 2 – 0.720 Well 3 – 0.900	mg/L	No
	2024/08/20	Well 1 – 0.448 Well 2 – 0.746 Well 3 – 0.929	mg/L	No

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Table 6: Nitrate and Nitrite Results Summary (continued)

Nitrate	2024/11/27	Well 1 – 0.366 Well 2 – 0.059 Well 3 – 0.971	mg/L	No
	2024/02/15	Well 1 – 0.03 <mdl Well 2 – 0.03<mdl Well 3 – 0.03<mdl< td=""><td>mg/L</td><td>No</td></mdl<></mdl </mdl 	mg/L	No
Nitrite	2024/05/29	Well 1 – 0.03 <mdl Well 2 – 0.03<mdl Well 3 – 0.03<mdl< td=""><td>mg/L</td><td>No</td></mdl<></mdl </mdl 	mg/L	No
Nittite	2024/08/20	Well 1 – 0.03 <mdl Well 2 – 0.03<mdl Well 3 – 0.03<mdl< td=""><td>mg/L</td><td>No</td></mdl<></mdl </mdl 	mg/L	No
	2024/11/27	Well 1 – 0.03 <mdl Well 2 – 0.03<mdl Well 3 – 0.03<mdl< td=""><td>mg/L</td><td>No</td></mdl<></mdl </mdl 	mg/L	No

Note: '<MDL' indicates the result was below the detection limit for the parameter's analysis method used by the external lab.

Under Section 13-8 and 13-9, sampling requirements for sodium and fluoride are once every 60 months. Sodium and fluoride sampling was completed in 2023, and the results are summarized in the table below for reference. The next sampling will be due in 2028.

Table 7: Sodium and Fluoride Results Summary

Parameter	Date Sampled	Results	Unit	Exceedance
Sodium	2023/08/29	Well 1 – 4.34 Well 2 – 4.60 Well 3 – 3.02	mg/L	No
Fluoride	2023/08/29	Well 1 – 0.06 <mdl Well 2 – 0.06<mdl Well 3 – 0.06<mdl< td=""><td>mg/L</td><td>No</td></mdl<></mdl </mdl 	mg/L	No

Note: '<MDL' indicates the result was below the detection limit for the parameter's analysis method used by the external lab.

4.4.4 Schedule 15.1: Lead Testing (O.Reg 170/03)

Lead samples are required to be collected from the drinking water system during the prescribed sampling periods of 'Winter' (December 15 to April 15) and 'Summer' (June 15 to October 15) in accordance with Schedule 15.1. The Sugarbush Drinking Water System has met the eligibility criteria for a reduction in sampling requirements as prescribed in Section 15.1-5. The distribution system sampling is required as follows:

- Alkalinity and pH each year, every "Winter" and "Summer" period
- Lead once every 3 years, "Winter" and "Summer" period

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The 2024 lead, total alkalinity and pH results are summarized in Table 8 below for reference.

Table 8: Alkalinity, pH and Lead Sampling Results Summary

Location Type	Sample Count	Date Sampled	Lead (ug/L)	Alkalinity (mg/L as CaCo ₃)	рН	Exceedance	
Plumbing	N/A	N/A	N/A	N/A	N/A	N/A	
Distribution	4	2024/03/24	0.02 - 0.19	159 – 165	7.9 - 8.0	No	
	4	2024/09/24	0.07 - 0.23	163 – 166	7.9 - 8.0	No	

4.5 Reporting and Corrective Actions

4.5.1 Schedule 16: Reporting of Adverse Test Results and Other Problems

In accordance with O.Reg 170/03, Schedule 16, notifications of adverse water quality incidents and other observations that indicate the potential of improperly disinfected water has been directed to users are provided to the MECP Spills Action Centre (SAC) and local Medical Officer of Health (Simcoe Muskoka District Health Unit (SMDHU)). There were four (4) incidents in the drinking water system during this reporting period.

4.5.2 Schedule 17: Corrective Actions

Corrective actions in response to the Adverse Water Quality Incident (AWQI) were conducted in accordance with Schedule 17 of O.Reg 170/03 and details are summarized in the table below for reference.

Table 9: Adverse Water Quality Incidents (AWQIs) & Corrective Actions Summary

AWQI Number:

165808

Incident Details:

Date: July 26, 2024

Loss of drinking water system pressure due to scheduled maintenance in the drinking water system.

Corrective Action:

The incident was reported to the SMDHU and SAC by Environmental Services staff as per O.Reg 170/03 requirements. Acceptable chlorine residuals were recorded across the distribution system by staff on site. Pressure was restored and corrective actions included operators immediately flushing the watermain. Acceptable chlorine residuals were achieved at both the start and end of watermain flushing.

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AWQI Number:

165836

Incident Details:

Date: July 29, 2024

Improperly disinfection water from Well 1 entered the distribution system while mixing with adequately disinfected water from Well 2. Chlorine residuals measured in the distribution system were compliant with regulation. It was determined that a SCADA alarm malfunction prevented the on-call operator from responding appropriately.

Corrective Action:

The incident was reported to the SMDHU and SAC by Environmental Services staff as per O.Reg 170/03 requirements. Acceptable chlorine residuals were recorded across the distribution system by staff on site. Microbiological samples were collected to confirm the integrity of the drinking water system. All microbiological results confirmed zero presence of coliform or indicator bacteria. Chlorine pump was repaired, and alarming issued investigated to be a technical anomaly.

AWQI Number:

165942

Incident Details:

Date: August 8, 2024

Loss of drinking water system pressure due to scheduled maintenance in the drinking water system.

Corrective Action:

The incident was reported to the SMDHU and SAC by Environmental Services staff as per O.Reg 170/03 requirements. Acceptable chlorine residuals were recorded across the distribution system by staff on site during the pressure loss. Pressure was restored and corrective actions included operators immediately flushing the watermain. Acceptable chlorine residuals were achieved at both the start and end of watermain flushing. Microbiological samples were collected to confirm the integrity of the drinking water system. All microbiological results confirmed zero presence of coliform or indicator bacteria.

DRINKING WATER COMPLIANCE REPORT 2024

AWQI Number:

166872

Incident Details:

Date: November 11, 2024

Loss of drinking water system pressure due to watermain break.

Corrective Action:

The incident was reported to the SMDHU and SAC by Environmental Services staff as per O.Reg 170/03 requirements. Pressure was restored once the watermain break was repaired and corrective actions included the operator immediately flushing the watermain and a microbiological sample was collected to confirm the integrity of the drinking water system. Acceptable chlorine residuals were achieved at both the start and end of watermain flushing. The microbiological results confirmed zero presence of coliform or indicator bacteria.

4.6 Municipal Summary Report

4.6.1 Schedule 22, Section 1

The following table summarizes the requirements of the Act, the Regulations, the system's approval, municipal drinking water licence, drinking water works permit, and any orders applicable to the system that were not met during the reporting period, including the duration and description of the corrective action(s) taken.

Table 10: Regulatory Compliance Summary

Safe Drinking Water Act (SDWA) & Associated Regulations

At the time of this report's compilation, the 2024 MECP Inspection Report for this system had not yet been received.

The 2023 MECP Inspection Report was received after the completion of the 2023 Drinking Water Compliance Report. During that reporting period, there were no issues or non-compliances identified.

Municipal Drinking Water Licence & Drinking Water Work Permit

At the time of this report's compilation, the 2024 MECP Inspection Report for this system had not yet been received.

The 2023 MECP Inspection Report was received after the completion of the 2023 Drinking Water Compliance Report. During that reporting period, there were no issues or non-compliances identified.

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Table 10: Regulatory Compliance Summary (continued)

Provincial Orders

At the time of this report's compilation, the 2024 MECP Inspection Report for this system had not yet been received.

The 2023 MECP Inspection Report was received after the completion of the 2023 Drinking Water Compliance Report. During that reporting period, there were no provincial orders identified.

Best Practice Issues and Recommendations

At the time of this report's compilation, the 2024 MECP Inspection Report for this system had not yet been received.

The 2023 MECP Inspection Report was received after the completion of the 2023 Drinking Water Compliance Report. During that reporting period, there were no best practices and/or recommendations identified.

4.6.2 Schedule 22, Section 2

In order to assist the Township in assessing the capability of the system to meet existing and planned uses of the system, Appendix A and B summarize the quantities of water volumes supplied and offer a visual depiction of permitted water taking compared to drinking water system demands during the reporting period, including monthly average and maximum daily flows.

5 Conclusion

This report satisfies the requirements of Section 11 and Schedule 22 of O.Reg. 170/03. Any questions regarding this report should be directed to Environmental Services.





Sugarbush Well Flow Summary Table

	Well 1				Well 2			Well 3				
	Permitted Capacity: 851 m3/day				Permitted Capacity: 1636 m3/day			Permitted Capacity: 1636 m3/day				
	Total Flow (m³)	Average Day (m³)	Maximum Day (m³)	Max. Day/ Capacity (%)	Total Flow (m³)	Average Day (m³)	Maximum Day (m³)	Max. Day/ Capacity (%)	Total Flow (m³)	Average Day (m³)	Maximum Day (m³)	Max. Day/ Capacity (%)
January	2340.94	75.51	114.23	13.42	5083.32	163.98	247.56	15.13	5002.73	161.38	238.51	14.58
February	2239.39	77.22	116.81	13.73	4829.24	166.53	252.95	15.46	4643.93	160.14	239.71	14.65
March	2373.14	76.55	153.77	18.07	5245.58	169.21	334.34*	20.44	5091.93	164.26	241.61	14.77
April	2213.11	73.77	174.99*	20.56	4419.56	147.32	196.41	12.01	6007.89	200.26	243.41	14.88
May	2340.49	75.50	126.11	14.82	5193.32	167.53	275.91	16.86	5851.17	188.75	242.41	14.82
June	1847.55	61.59	96.11	11.29	4085.60	136.19	210.68	12.88	5836.38	194.55	244.21	14.93
July	2328.79	75.12	118.93	13.98	5119.70	165.15	261.14	15.96	6043.78	194.96	261.21	15.97
August	2533.61	81.73	123.23	14.48	5537.25	178.62	272.88	16.68	5604.86	180.80	313.81*	19.18
September	2204.72	73.49	129.51	15.22	4819.52	160.65	282.82	17.29	4851.02	161.70	212.90	13.01
October	1629.40	52.56	119.64	14.06	3549.26	114.49	260.31	15.91	5073.92	163.67	251.31	15.36
November	1043.25	34.77	57.35	6.74	2274.45	75.82	124.45	7.61	4853.92	161.80	211.20	12.91
December	1797.28	57.98	87.70	10.31	3898.71	125.76	190.25	11.63	2888.99	93.19	219.50	13.42

^{*}Denotes month of maximum day flow for 2024.

Appendix B – Average and Maximum Daily Usage Compared to Permitted Daily Capacity



Average and Maximum Daily Usage Compared to Permitted Daily Capacity

