2025 Annual Summary Report

Scotland Community Centre Drinking Water System

1. General Information

The County of Brant prepares a report summarizing system operation and water quality for every municipal drinking water system annually. The reports detail the latest water quality testing results, water quantity statistics and any adverse conditions that may have occurred for the previous year, January 1 through December 31. They are available on March 31 on the County website at www.brant.ca/en/water-services/water-services.aspx or by contacting the County of Brant Operations Department.

All efforts have been made to ensure the information presented in this report is accurate. If you have any questions or comments concerning the report, please contact the County at the address and phone number listed below or by email at operations@brant.ca.

Drinking Water System:	**Scotland Community Centre**
Drinking Water System Number:	**260024375**
Reporting Period:	**January 1, 2025 – December 31, 2025**

Drinking Water System Owner & Contact Information:
Corporation of the County of Brant
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1.1 System Description

Located at 85 Simcoe St, in Scotland, Ontario, the Scotland Community Centre is a Small Municipal Non-Residential System as defined by *Ontario Regulation (O.Reg) 170/03*. This drinking water system serves one (1) designated facility, a day nursery called Just 4 Moms and Kids Cooperative Corporation. The facility has one (1) interested authority, the Ministry of Education.

The Scotland Community Centre Drinking Water System consist of one (1) drilled well that extends into the bedrock aquifer to a depth of 37.2 metres below ground level. The well is equipped with a submersible pump capable of 0.63 L/s, but the system has been restricted to 0.57 L/s. The treatment system consists of two (2) treatment trains. Each treatment train consists of a 25-to-1-micron nominal dual gradient pre-filter, a 1-micron absolute polishing filter, and an NSF 55A rated U.V. irradiation disinfection unit complete and an auto shut-off valve that operates in the event of insufficient disinfection or loss of power. All drinking water plumbing is contained in a single building.

1.2 Major Expenses

In 2025, the Scotland Community Center Drinking Water System had no major expenses related to maintenance or upgrades.

2. Microbiological Testing

2.1 E. coli, Total Coliform, Background (BKG)

Bacteriological tests for E. coli and total coliforms are required monthly from the raw and treated water at the facility. Extra samples are taken after major repairs or maintenance work. Any E. coli or total coliform results above zero (0) in treated water samples must be reported to the Ministry of Environment, Conservation and Parks (MECP) and Medical Officer of Health (MOH). Resamples and any other required actions are taken as quickly as possible.

Bacteriological tests for BKG bacteria are not regulatory but are done as a due diligence action. Background tests are an indicator of the general bacteria population in a water sample. Background bacteria should be less than 200 colonies per one (1) mL. Results over 200 colonies per one (1) mL may indicate a change in water quality but it is not considered an indicator of unsafe water.

The results from the 2025 sampling program are shown in the table below. There were no adverse test results from the 36 water samples in this reporting period.

Sample Location	No. of Samples	Range of E.Coli Results (cfu/100ml)	Range of Total Coliform Results (cfu/100ml)	Range of BKG Results (cfu/100ml)
Raw Well 1	12	0-0	0-9	0-12
Plumbing	24	0-0	0-0	0-0

3. Chemical Testing

The *Safe Drinking Water Act* requires periodic testing of the water for approximately 60 different chemical parameters. The latest results for all parameters are provided in Appendix A. The sampling frequency varies for different types and sizes of water systems and chemical parameters. If the concentration of a parameter is above half of the Maximum Allowable Concentration (MAC) under the Ontario Drinking Water Quality Standards, an increased testing frequency of once every three (3) months is required by the Regulation. Where concerns regarding a parameter exist, the MECP can also require additional sampling be undertaken.

Information on the health effects and allowable limits of components in drinking water may be found on the MECP web page through the link provided in Appendix A. Additional information on common chemical parameters specific to the Scotland Community Centre Drinking Water System is provided below.

3.1 Sodium

Sodium levels in drinking water are tested once every five (5) years. The aesthetic objective is 200 mg/L meaning at levels less than this the sodium will not impair the taste of the water. When sodium levels are above 20 mg/L the MECP and MOH are notified.

The last sodium sample taken in the Scotland Community Centre Drinking Water System was in 2022 and had a result of 17 mg/L.

3.3 Additional Testing Required by MECP

No additional testing is required by the MECP for this system.

4. Operational Monitoring

4.1 Turbidity

Turbidity of treated water is continuously monitored at the treatment facilities as a change in turbidity can indicate an operational problem. As a minimum, turbidity for each well is required to be tested monthly. Turbidity is measured in nephelometric turbidity units (NTU). Under *O.Reg. 170/03* turbidity in groundwater from a secure well or a well with effective in-situ filtration is not reportable however turbidity should be < 1 NTU at the treatment plant and < 5 NTU in the distribution system. A summary of the monitoring results for 2025 is provided in the table below.

Sample Location	Number of Samples	Range of Results (NTU)
Raw Well 1	12	0.21-0.71
Plumbing	12	0.05-0.20

5. Non-Compliance Findings and Adverse Results

This section documents any known incidents of non-compliance or adverse results, and the associated correction actions taken to resolve the issue. Non-compliance issues are typically identified by either the Operating Authority or the MECP Drinking Water Inspectors. The issues and associated required actions are documented by the Inspectors in the system's Annual Inspection Report. All non-compliance issues are investigated, corrective actions taken and documented using the County's Drinking Water Quality Management System (DWQMS) procedures.

5.1 Non-Compliance Findings

An MECP drinking water system inspection was conducted on October 9, 2018. There were no Non-Compliance findings from the inspection.

5.2 Adverse Results

Any adverse results from bacteriological, chemical samples or observations of operational conditions that indicate adverse water quality are reported as required and corrective actions are taken. There were no adverse or reportable occurrences in 2025.

Appendix A: Summary of Chemical Results

Understanding Chemical Test Results

The following tables summarize the laboratory results of the chemical testing the County is required to complete. Parameters are required to be tested at frequencies as noted below. Explanations on the health impacts of these parameters can be found in the MECP document PSIB 4449e01 titled "Technical Support Document for Ontario Drinking Water Standards, Objectives and Guidelines" available at https://cvc.ca/wp-content/uploads/2011/03/std01_079707.pdf.

Results are shown as concentrations with units of either milligrams per litre (mg/L) or micrograms per litre (µg/L). 1 mg/L is equal to 1000 µg/L. The Maximum Acceptable Concentration (MAC) is the highest amount of a parameter that is acceptable in Municipal drinking water and can be found in the MECP Drinking Water Standards. The aesthetic objective (A/O) is established for parameters that may impair the taste, odour or colour of water or which may interfere with good quality control practices. For parameters that the Technical Support Document for Ontario Drinking Water Standards, Objectives and Guidelines have not established either a MAC or an A/O, a "-" will indicate this. A result of "ND" stands for "Not Detected" and means that the concentration of the chemical is lower than level that the laboratory equipment is capable of measuring.

Table 1 – Nitrite and Nitrate

Nitrate and nitrite samples are required every three (3) months from the treatment system in normal operation.

Parameter	Sample Date (mm/dd/yy)	Result (mg/L)	MAC (mg/L)	Exceedance
Nitrite (as N)	02/04/25	<0.010	1.0	No
	05/06/25	<0.010	1.0	No
	08/05/25	<0.010	1.0	No
	11/04/24	<0.010	1.0	No
Nitrate (as N)	02/04/25	<0.10	10.0	No
	05/06/25	<0.10	10.0	No
	08/05/25	<0.10	10.0	No
	11/04/24	<0.10	10.0	No

Table 2 – Sodium and Fluoride

Testing of fluoride and sodium is required every five (5) years from the treatment system.

Parameter	Sample Date (mm/dd/yy)	Result (mg/L)	MAC (mg/L)	A/O (mg/L)	Exceedance
Fluoride	05/03/22	1.3	1.5	-	No
Sodium	05/03/22	17	20	200	No

**Sodium levels between 20 – 200 mg/L must be reported every five (5) years.*

***Natural levels of fluoride between 1.5 – 2.4 mg/L must be reported every five (5) years.*

Table 3 – Lead

The following Table summarizes the most recent results for the Lead Testing Program, having been conducted in 2025. Lead samples are taken every year from the plumbing system.

Parameter	Sample Date (mm/dd/yy)	Result (µg /L)	MAC (µg /L)	A/O (µg /L)	Exceedance
Plumbing	07/02/25	ND	0.01	-	No

Table 4 – Schedule 23 Inorganic Parameters

The following Table summarizes the most recent test results for Schedule 23. Testing is required every five (5) years for the secure, non-GUDI wells in the Scotland Community Centre Drinking Water System.

Parameter	Sample Date (mm/dd/yy)	Result	Unit of Measure	MAC	A/O	Exceedance
Antimony	05/03/22	<0.00050	mg/L	0.006	-	No
Arsenic	05/03/22	<0.0010	mg/L	0.01	-	No
Barium	05/03/22	0.015	mg/L	1.0	-	No
Boron	05/03/22	0.19	mg/L	5.0	-	No
Cadmium	05/03/22	<0.000090	mg/L	0.005	-	No
Chromium	05/03/22	<0.0050	mg/L	0.05	-	No
Iron	07/06/17	0.60	mg/L	-	0.30	Yes
Mercury	05/03/22	<0.00010	mg/L	0.001	-	No
Selenium	05/03/22	<0.0020	mg/L	0.05	-	No
Uranium	05/03/22	0.00020	mg/L	0.02	-	No

Table 5 – Schedule 24 Organic Parameters

The following Table summarizes the Organic parameters in Schedule 24 sampled during this reporting period or the most recent sample results. Testing is required every five (5) years for the secure, non-GUDI wells in the Scotland Community Centre Drinking Water System.

Parameter	Sample Date (mm/dd/yy)	Result Value	Unit of Measure	MAC	A/O	Exceedance
1,1-Dichloroethylene	05/03/22	<0.10	µg/L	14	-	No
1,2-Dichlorobenzene	05/03/22	<0.20	µg/L	200	-	No
1,2-Dichloroethane	05/03/22	<0.20	µg/L	5	-	No
1,4-Dichlorobenzene	05/03/22	<0.20	µg/L	5	-	No
2,3,4,6-Tetrachlorophenol	05/03/22	<0.50	µg/L	100	-	No
2,4,6-Trichlorophenol	05/03/22	<0.50	µg/L	5	-	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	05/03/22	<1.0	µg/L	100	-	No

Parameter	Sample Date (mm/dd/yy)	Result Value	Unit of Measure	MAC	A/O	Exceedance
2-4 Dichlorophenol	05/03/22	<0.25	µg/L	900	-	No
Alachlor	05/03/22	<0.50	µg/L	5	-	No
Aroclor 1016	05/03/22	<0.05	µg/L	-	-	No
Aroclor 1221	05/03/22	<0.05	µg/L	-	-	No
Aroclor 1232	05/03/22	<0.05	µg/L	-	-	No
Aroclor 1242	05/03/22	<0.05	µg/L	-	-	No
Aroclor 1248	05/03/22	<0.05	µg/L	-	-	No
Aroclor 1254	05/03/22	<0.05	µg/L	-	-	No
Aroclor 1260	05/03/22	<0.05	µg/L	-	-	No
Atrazine	05/03/22	<0.50	µg/L	-	-	No
Atrazine+Desethyl-atrazine	05/03/22	<1.0	µg/L	5	-	No
Benzene	05/03/22	<0.10	µg/L	1	-	No
Benzo(a)pyrene	05/03/22	<0.0050	µg/L	0.01	-	No
Bromoxynil	05/03/22	<0.50	µg/L	5	-	No
Carbaryl	05/03/22	<5.0	µg/L	90	-	No
Carbofuran	05/03/22	<5.0	µg/L	90	-	No
Carbon Tetrachloride	05/03/22	<0.10	µg/L	2	-	No
Chlorobenzene	05/03/22	<0.10	µg/L	80	-	No
Chlorpyrifos (Dursban)	05/03/22	<1.0	µg/L	90	-	No
Desethyl-atrazine	05/03/22	<0.50	µg/L	-	-	No
Diazinon	05/03/22	<1.0	µg/L	20	-	No
Dicamba	05/03/22	<1.0	µg/L	120	-	No
Diclofop-methyl	05/03/22	<0.90	µg/L	9	-	No
Dimethoate	05/03/22	<2.5	µg/L	20	-	No
Diquat	05/03/22	<7.0	µg/L	70	-	No
Diuron	05/03/22	<10	µg/L	150	-	No
Glyphosate	05/03/22	<10	µg/L	280	-	No
Guthion	05/03/22	<2.0	µg/L	20	-	No

Parameter	Sample Date (mm/dd/yy)	Result Value	Unit of Measure	MAC	A/O	Exceedance
Malathion	05/03/22	<5.0	µg/L	190	-	No
MCPA	05/03/22	<10	µg/L	100	-	No
Methylene Chloride	05/03/22	<0.50	µg/L	50	-	No
Metolachlor	05/03/22	<0.50	µg/L	50	-	No
Metribuzin	05/03/22	<5.0	µg/L	80	-	No
Paraquat	05/03/22	<1.0	µg/L	10	-	No
Pentachlorophenol	05/03/22	<0.50	µg/L	60	-	No
Phorate	05/03/22	<0.50	µg/L	2	-	No
Picloram	05/03/22	<5.0	µg/L	190	-	No
Total PCB	05/03/22	<0.05	µg/L	3	-	No
Prometryne	05/03/22	<0.25	µg/L	1	-	No
Simazine	05/03/22	<1.0	µg/L	10	-	No
Terbufos	05/03/22	<0.50	µg/L	1	-	No
Tetrachloroethylene	05/03/22	<0.10	µg/L	10	-	No
Toluene	05/03/22	<0.20	µg/L	60	24	No
Triallate	05/03/22	<1.0	µg/L	230	-	No
Trichloroethylene	05/03/22	<0.10	µg/L	5	-	No
Trifluralin	05/03/22	<1.0	µg/L	45	-	No
Vinyl Chloride	05/03/22	<0.20	µg/L	1	-	No