SOUTH BRUCE WATER SYSTEMS
2024 SUMMARY REPORT

PREPARED IN ACCORDANCE WITH SCHEDULE 22
ONTARIO REGULATION 170/03, AS AMENDED

PREPARED BY VEOLIA WATER CANADA
FOR THE MUNICIPALITY OF SOUTH BRUCE
February 18, 2025

REPORTING PERIOD: JANUARY 1, 2024 TO DECEMBER 31, 2024

Summary of Reporting Requirements

O. Reg 170/03, Section 22 sets out the preparation and distribution of an annual summary report by owners of a drinking water system.
22-2. (1) The owner of a drinking water system shall ensure that, no later than March 31 of each year after 2003, a report is prepared in accordance with subsections (2) and (3) for the preceding calendar year and is given to,
(a) in the case of a drinking water system owned by a municipality, the members of the municipal council;
(b) in the case of a drinking water system owned by a municipal service board established under section 195 of the *Municipal Act, 2001*, the members of the municipal service board; or
(c) in the case of a drinking water system owned by a corporation, the board of directors of the corporation.
(2) 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.
(3) The report must also include the following information for the purpose of enabling the owner of the system to assess the capability of the 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.
(4) If a report is prepared under subsection (1) for a system that supplies water to a municipality under the terms of a contract, the owner of the system shall give a copy of the report to the municipality by March 31.

Mildmay Water System – Drinking Water System #220002654

Report Period: January 1st, 2024 to December 31st, 2024

On November 27, 2024, Heather Lovely from the Ministry of the Environment Conservation and Parks began an inspection of the Mildmay Water System. The final report was submitted by Heather Lovely on January 30, 2025. There was no non-compliance item reported.

The following table lists the Adverse Water Quality Incidents that occurred during the reporting period:

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
NA					

Mildmay Infrastructure Review
The following items have been identified as potential improvements for the Mildmay Water System:

- Connecting link from Elora St Bridge to Church St. (Mildmay) - Have applied for funding
- Dietz St and Kleist St (Mildmay)

Maintenance/Expenses

July 18-19 - A large water main break occurred on the Chlorine Contact Pipe. The Municipality, Veolia, and Al Reich's worked together to repair the break.
July 30 - Kurtis Smith Excavating replaced 2 valves on Absalom Street
August 29 - Hoppers performed the 10 year inspection on Well #1
October 7th & 10th - Replaced several water main saddles on Grey and Melba Courts

Mildmay Summary of Quantities and Flow Rates - January 1st to December 31st, 2024

MONTH	Total Flow For Month (Liters)	Average Daily Flow (Liters)	Maximum Daily Flow (Liters)
January	14,745,000	475,645	697,000
February	13,389,000	461,690	577,000
March	14,610,000	471,290	580,000
April	13,792,000	459,733	604,000
May	14,776,000	476,645	592,000
June	16,030,000	534,333	766,000
July	17,457,000	563,129	1,172,000
August	15,740,000	507,742	874,000
September	14,953,000	498,433	669,000
October	16,276,000	525,032	673,000
November	14,676,000	489,200	659,000
December	15,349,000	495,129	602,000
TOTAL:	181,793,000		
DAILY AVERAGE:		496,702	
DAILY MAXIMUM:			1,172,000
MAXIMUM ALLOWABLE TAKING, AS PER PERMIT TO TAKE WATER			
DRINKING WATER LICENCE CAPACITY (DAILY): 1,637,000 Litres			
MAXIMUM ALLOWABLE PER DAY: 1,600,000 Litres			

For 2024 the average daily flow rate was **31.04**%, and the maximum daily flow was **73.25**% of the Permit To Take water capacity of 1,600,000 Litres per day.
The maximum daily flow was **71.59**% of the Municipal Drinking Water License Rated Capacity of 1,637,000 Litres per day.

Identified Peak Flow Outliers between January 1, 2024 - December 31, 2024

July 18-19, 2024 - A large water main break occurred on the Chlorine Contact Water main located North of the Pumphouse. Veolia, The Municipality, and Al Reich's worked to get the watermain repaired.

July 20, 2024 - 1170m3 was used to fill the tower, after it was emptied from the leak.

With the above outlier reasonably removed from the data, the adjusted 2024 maximum daily flow is **874,000 L,** which is **54.62**% of the Permit To Take water capacity of 1,600,000 L/day. The adjusted maximum daily flow is **53.39**% of the Municipal Drinking Water License Rated Capacity of 1,637,000 L/day.

Mildmay Well #1 Raw Water Quality Trends

Raw Water Well #1 - E. Coli

Month	Monthly Minimum	Monthly Maximum	Monthly # Samples
Jan '24	0	0	5
Feb '24	0	0	4
Mar '24	0	0	4
Apr '24	0	0	5
May '24	0	0	4
Jun '24	0	0	4
Jul '24	0	0	5
Aug '24	0	0	6
Sep '24	0	0	4
Oct '24	0	0	5
Nov '24	0	0	4
Dec '24	0	0	5
Annual Summary			
Min	**0**		
Max		**0**	
Avg		**0**	
# of Samples			**55**

Raw Water Well #1 - Total Coliform

Month	Monthly Minimum	Monthly Maximum	Monthly # Samples
Jan '24	0	0	5
Feb '24	0	0	4
Mar '24	0	0	4
Apr '24	0	0	5
May '24	0	0	4
Jun '24	0	0	4
Jul '24	0	0	5
Aug '24	0	0	6
Sep '24	0	0	4
Oct '24	0	0	5
Nov '24	0	0	4
Dec '24	0	0	5
Annual Summary			
Min	**0**		
Max		**0**	
Avg		**0**	
# of Samples			**55**

Raw Turbidty - Well #1

Month	Raw Water Turbidity			
	Average NTU	Minimum NTU	Maximum NTU	# of Samples
Jan '24	0.15	0.12	0.17	5
Feb '24	0.14	0.10	0.22	4
Mar '24	0.15	0.13	0.18	4
Apr '24	0.14	0.08	0.22	5
May '24	0.17	0.12	0.20	4
Jun '24	0.18	0.14	0.20	4
Jul '24	0.17	0.13	0.25	5
Aug '24	0.21	0.07	0.27	4
Sep '24	0.20	0.11	0.33	4
Oct '24	0.16	0.14	0.17	5
Nov '24	0.18	0.12	0.23	4
Dec '24	0.16	0.11	0.23	5
Annual Summary				
Total				**53**
Average	**0.16**			
Maximum			**0.33**	
Minimum		**0.07**		

The raw water quality of the Well #1 in Mildmay remains excellent.
The first two tables below show that there were no instances of E. Coli or Total Coliform in the Raw Water Sample Results.
The third table shows the Raw Water Turbidity. Turbidity is a measurement of the clarity of the water (the lower the number the more clear the water is). For 2024 the raw turbidity ranged from 0.07 to 0.33 ntu, and averaged 0.16 ntu. This range is consistent with previous years Raw Water Turbidity.
A below grade inspection of Well #1 was completed on August 29, 2024 by W.D. Hopper & Sons LTD.

Mildmay Well #2 Raw Water Quality Trends

Raw Water Well #2 - E. Coli

Month	Monthly Minimum	Monthly Maximum	Monthly # Samples
Jan '24	0	0	5
Feb '24	0	0	4
Mar '24	0	0	4
Apr '24	0	0	5
May '24	0	0	4
Jun '24	0	0	4
Jul '24	0	0	5
Aug '24	0	0	4
Sep '24	0	0	4
Oct '24	0	0	5
Nov '24	0	0	4
Dec '24	0	0	5
Annual Summary			
Min	0		
Max		0	
Avg		0	
Total			53

Raw Water Well #2 - Total Coliform

Month	Monthly Minimum	Monthly Maximum	Monthly # Samples
Jan '24	0	0	5
Feb '24	0	0	4
Mar '24	0	0	4
Apr '24	0	0	5
May '24	0	0	4
Jun '24	0	0	4
Jul '24	0	0	5
Aug '24	0	0	4
Sep '24	0	0	4
Oct '24	0	0	5
Nov '24	0	0	4
Dec '24	0	0	5
Annual Summary			
Min	0		
Max		0	
Avg		0	
Total			53

Raw Turbidity - Well #2

Month	Raw Water Turbidity			
	Average NTU	Minimum NTU	Maximum NTU	# of Samples
Jan '24	0.16	0.12	0.19	5
Feb '24	0.16	0.10	0.23	4
Mar '24	0.17	0.16	0.18	4
Apr '24	0.15	0.09	0.19	5
May '24	0.16	0.13	0.21	4
Jun '24	0.19	0.12	0.23	4
Jul '24	0.19	0.15	0.28	5
Aug '24	0.18	0.15	0.19	4
Sep '24	0.25	0.23	0.28	4
Oct '24	0.15	0.10	0.18	5
Nov '24	0.19	0.15	0.22	4
Dec '24	0.19	0.15	0.21	5
Annual Summary				
Total				53
Average	0.18			
Maximum			0.28	
Minimum		0.09		

The raw water quality of the Well #2 in Mildmay remains excellent.
The first two tables below show that there were no instances of E. Coli or Total Coliform in the Raw Water Sample Results.
The third table shows the Raw Water Turbidity. For 2024 the raw turbidity ranged from 0.09 to 0.28 ntu, and averaged 0.18 ntu. This range is consistent with previous years Raw Water Turbidity.
Based on this information it does not appear that a below grade inspection of the well is required at this time. The previous below grade inspection for Well #2 was completed in 2015. The next below grade inspection should take place in 2025.

Teeswater Water System – Drinking Water System #220002654

Report Period: January 1st, 2024 to December 31st, 2024

On November 27, 2024, Heather Lovely from the Ministry of the Environment Conservation and Parks began an inspection of the Mildmay Water System. The final report has not yet been submitted by Heather Lovely.

The following table lists the Adverse Water Quality Incidents that occurred during the reporting period:

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
July 7, 2024 AWQI# 165484	Low Chlorine	**0.08**	**mg/L**	Flowmeter stopped working from approx. 4:25pm-6:30pm, causing flow-based chlorine pumps to not output. Flowmeter resumed working, increased pace factor for flow-based. Checked residual at 6 locations, lowest was 0.85mg/L	**July 7, 2024**
Oct. 4, 2024 AWQI# 166575	Loss of proper chlorine monitoring	**-**	**mg/L**	Loss of proper chlorine monitoring from 10:13am Oct. 4/24 - 9:26am Oct. 5/24. The cause was the chlorine analyser being left in the calibration setting. The Analyzer was taken out of calibration mode, then properly calibrated. No issues found. Checked residual at 4 locations, the lowest residual was 1.34mg/L	**Oct. 5, 2024**

Teeswater Infrastructure Review

The following items have been identified as potential improvements for the Teeswater Drinking Water System:

- Engineering is in progress for a Water Tower and a Second Well. Once the tender price has been received it will be determined whether or not this project will move forward

Maintenance/Expenses

July 7-8 - An issue occurred with the Pumphouse flowmeter. Advanced Meter Services and Veolia completed a repair to the meter.

Teeswater Summary of Quantities and Flow Rates - January 1st to December 31st, 2024

MONTH	Total Flow For Month (Liters)	Average Daily Flow (Liters)	Maximum Daily Flow (Liters)
January	9,581,000	309,065	397,000
February	8,664,000	298,759	335,000
March	8,754,000	282,387	347,000
April	7,926,000	264,200	334,000
May	10,081,000	325,194	558,000
June	10,967,000	365,567	576,000
July	11,200,000	361,290	459,000
August	10,335,000	333,387	452,000
September	11,010,000	367,000	463,000
October	9,745,000	314,355	409,000
November	10,365,000	345,500	427,000
December	10,836,000	349,548	452,000
TOTAL:	119,464,000		
DAILY AVERAGE:		326,404	
DAILY MAXIMUM:			576,000

MAXIMUM ALLOWABLE TAKING, AS PER PERMIT TO TAKE WATER

DRINKING WATER LICENCE CAPACITY (DAILY): 2,160,000 Litres

MAXIMUM ALLOWABLE PER DAY: 1,600,000 Litres

For 2024 the average daily flow rate was **20.40**%, and the maximum daily flow was **36.0**% of the Permit To Take water capacity of 1,600,000 Litres per day. The maximum daily flow was **26.67**% of the Municipal Drinking Water License Rated Capacity of 2,160,000 Litres per day.

Identified Peak Flow Outliers between January 1, 2024 - December 31, 2024

None during this time.

Teeswater Raw Water Quality Trends

Raw Water - E. Coli Results

Month	Monthly Minimum (cfu/100ml)	Monthly Maximum (cfu/100ml)	Monthly # Samples
Jan '24	0	0	5
Feb '24	0	0	4
Mar '24	0	0	4
Apr '24	0	0	5
May '24	0	0	4
Jun '24	0	0	4
Jul '24	0	0	5
Aug '24	0	0	4
Sep '24	0	0	4
Oct '24	0	0	5
Nov '24	0	0	4
Dec '24	0	0	5
Annual Summary			
Min	0		
Max		0	
Avg			
Total			53

Raw Water - Total Coliform Results

Month	Monthly Minimum (cfu/100ml)	Monthly Maximum (cfu/100ml)	Monthly # Samples
Jan '24	0	0	5
Feb '24	0	0	4
Mar '24	0	0	4
Apr '24	0	0	5
May '24	0	0	4
Jun '24	0	0	4
Jul '24	0	0	5
Aug '24	0	0	4
Sep '24	0	0	4
Oct '24	0	0	5
Nov '24	0	0	4
Dec '24	0	0	5
Annual Summary			
Min	0		
Max		0	
Avg			
Total			53

Raw Water Turbidity

Month	Raw Turbidity			
	Minimum ntu	Maximum ntu	Average ntu	No. of Samples
Jan '24	0.10	0.18	0.14	5
Feb '24	0.09	0.18	0.14	4
Mar '24	0.09	0.22	0.15	4
Apr '24	0.09	0.27	0.16	5
May '24	0.09	0.14	0.11	4
Jun '24	0.08	0.15	0.13	4
Jul '24	0.10	0.17	0.14	5
Aug '24	0.09	0.19	0.14	4
Sep '24	0.13	0.33	0.19	4
Oct '24	0.16	0.19	0.17	5
Nov '24	0.11	0.18	0.16	4
Dec '24	0.14	0.21	0.18	5
Annual Summary				
# of Samples				53
Minimum	0.08			
Maximum		0.33		
Average			0.15	

The raw water quality of the well in Teeswater remains excellent.
The first two tables below show that there were no instances of E. Coli or Total Coliform in the Raw Water Sample Results.
The third table shows the Raw Water Turbidity. For 2024 the raw turbidity ranged from 0.08 to 0.33 ntu, and averaged 0.15 ntu.
This range is consistent with previous years Raw Water Turbidity.
Based on this information it does not appear that a below grade inspection of the well is required at this time.