

# **WTP-106 DRINKING WATER SYSTEM WATERWORKS # 220007141**

## **SMALL MUNICIPAL RESIDENTIAL**

## **ANNUAL WATER REPORT**

**PREPARED FOR**  
The Township of Ramara

**SUBMITTED BY**  
Ontario Clean Water Agency  
2115 Highway 12, Brechin, ON L0K 1B0

Reporting Period: January 1 – December 31, 2025

Issued: February 13, 2026

Revision: 0

Operating Authority: Ontario Clean Water Agency (OCWA)

This report has been prepared to satisfy the annual reporting requirements in O. Reg. 170/03 Section 11 and Schedule 22.

# Table of Contents

<b>1. Report Availability .....</b>	<b>1</b>
<b>2. Compliance Report Card.....</b>	<b>1</b>
<b>3. System Process Description.....</b>	<b>2</b>
Raw Source .....	2
Treatment.....	2
Treatment Chemicals used during the reporting year:.....	2
<b>4. Summary of Non-Compliance.....</b>	<b>1</b>
Adverse Water Quality Incidents.....	1
Non-Compliance .....	1
Non-Compliance Identified in a Ministry of the Environment Conservation and Parks Inspection ....	1
Community Complaints .....	1
Flows.....	1
Raw Water Flows.....	1
Treated Water Flows .....	8
Davy Drive Drinking Water System Historical Demands .....	8
System Reserve Capacity .....	8
Monthly Rated Flows .....	9
Annual Total Flow Comparison .....	9
<b>5. Regulatory Sample Results Summary .....</b>	<b>10</b>
Microbiological Testing.....	10
Operational Testing .....	10
Inorganic Parameters .....	10
Schedule 15 Sampling.....	11

Organic Parameters ..... 12

Additional Legislated Samples ..... 14

Inorganic or Organic Parameter Exceedances ..... 14

**6. Major Maintenance Summary ..... 14**

**Appendix A - WTRS Data Submission Confirmation**

## 1. Report Availability

This system does not serve more than 10,000 residence and the annual reports will be available to residents at the Township of Ramara Administration Office and on the Township’s website at [www.ramara.ca](http://www.ramara.ca). Notification that reports are available free of charge will be made on the Township of Ramara website. The Township of Ramara Administration Office is located at 2297 Highway 12, Brechin, ON L0K 1B0.

## 2. Compliance Report Card

**Drinking Water System Number:** 220007141

**Drinking Water System Name:** WTP-106 (Davy Drive Subdivision DWS)

**Drinking Water System Owner:** Township of Ramara

**Drinking Water System Category:** Small Municipal Residential

**Period Being Reported:** January 1, 2025 - December 31, 2025

Health & Safety	Number of Events	Date	Details
Number of Incidents	0	N/A	N/A

Drinking Water	Number of Events	Date	Details
Ministry of the Environment Conservation and Parks (MECP) Inspections	1	January 20, 2026	Announced Drinking Water Inspection for 2025 inspection cycle completed. Inspection rating not yet received.
Adverse Water Quality Incidents (AWQI)	1	August 8, 2025	AWQI 169367 Treated Water High Sodium Result
Number of Non-Compliances	0	N/A	N/A
Number of Boil Water Advisories	0	N/A	N/A

### 3. System Process Description

#### Raw Source

The water supply for the Davy Drive Subdivision Drinking Water System comes from four (4) groundwater wells that are considered to be GUDI (Groundwater Under the Direct Influence of Surface Water).

#### Treatment

The treatment system consists of the following:

- Pre-chlorination system and potassium permanganate system for iron and manganese oxidation
- Two (2) greensand filters with backwash equipment and backwash waste storage/decant tank system
- Cartridge filtration systems
- Ultraviolet Light Disinfection for primary disinfection
- Sodium hypochlorite secondary disinfection system
- One (1) standpipe reservoir for potable water storage
- A high lift pumping system
- Stand-by propane generator on-site

#### Treatment Chemicals used during the reporting year:

Chemical Name	Use	Supplier
Sodium Hypochlorite	Disinfection	Brenntag
Potassium Permanganate	Iron and Manganese Oxidation	Carus Chemical Company

## 4. Summary of Non-Compliance

### Adverse Water Quality Incidents

Date	AWQI #	Location	Details	Legislation	Corrective Action Taken
August 8, 2025	169367	Treated Water	High Sodium Result of 23.4 mg/L	O. Reg 170/03	Re-sampled TW on August 11, 2025, results = 25.3 mg/L. Sodium Notices made public through the Township of Ramara.

### Non-Compliance

Legislation	Requirement(s) system failed to meet	Duration of the failure (i.e., date(s))	Corrective Action	Status
There were no non-compliance issues reported during the reporting period.				

### Non-Compliance Identified in a Ministry of the Environment Conservation and Parks Inspection:

Legislation	Requirement(s) system failed to meet	Duration of the failure (i.e. date(s))	Corrective Action	Status
There were no non-compliances identified in a Ministry of the Environment Conservation and Parks Inspection during this period.				

### Community Complaints

Date	Details of Complaint	Corrective Action
There were no community complaints reported during this period.		

### Flows

The Davy Drive Drinking Water System is operating on average under half the rated capacity.

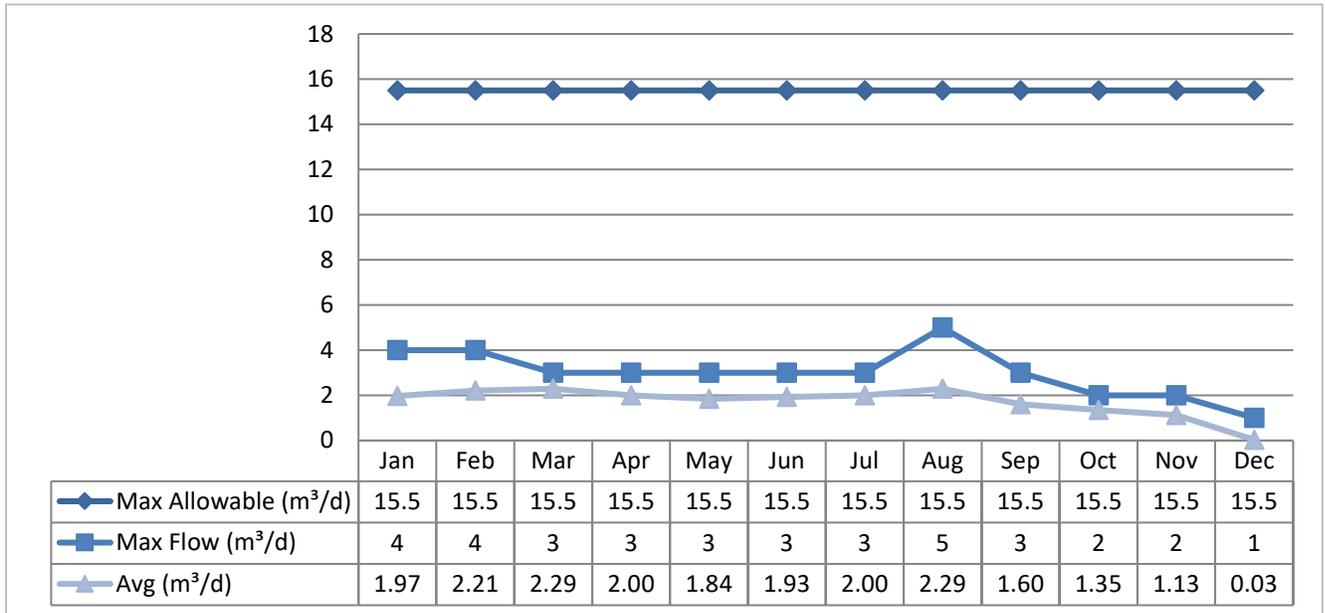
### Raw Water Flows

The Permit to Take Water compliance criteria is in litres per minute (L/min) but for the purposes of this report the flow rate is reported in litres per second (L/sec) based on industry standard for flow

monitoring recording. The Raw Water flows are regulated under the Permit to Take Water. 2025 Raw Flow Data was submitted to the Ministry of the Environment Conservation and Parks electronically under permit #7187-AQPS6B. The confirmation and a copy of the data that was submitted are attached in Appendix A.

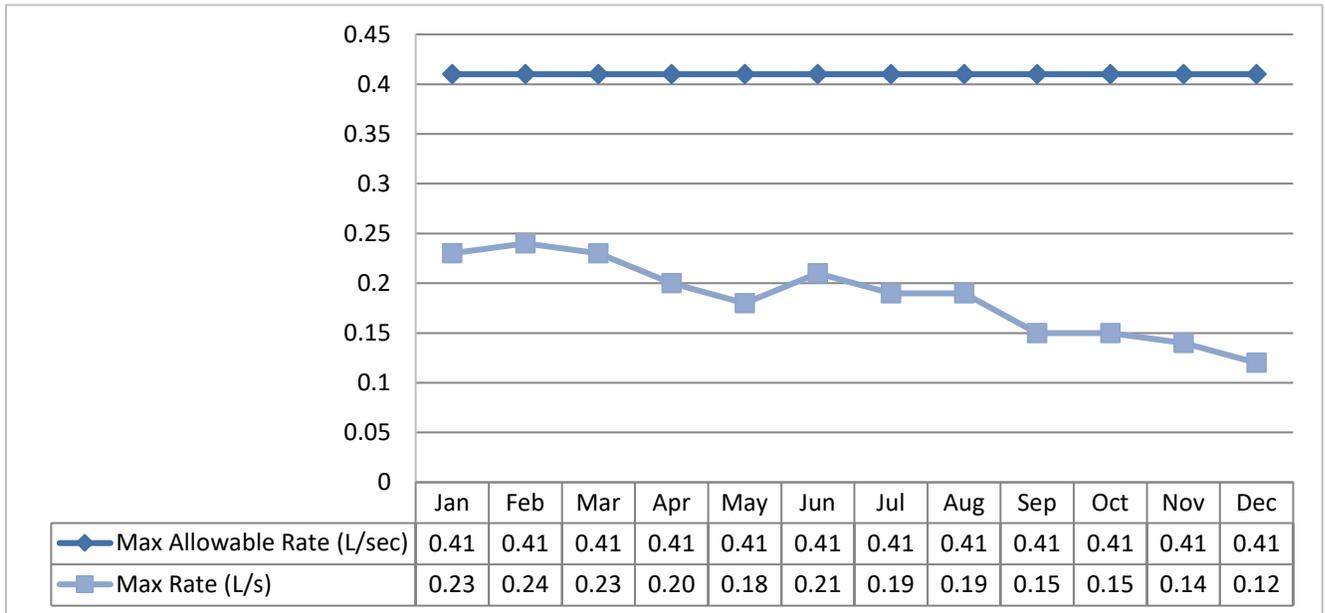
## Total Monthly Flows (m<sup>3</sup>/d)

Max Allowable PTTW – Well # 1



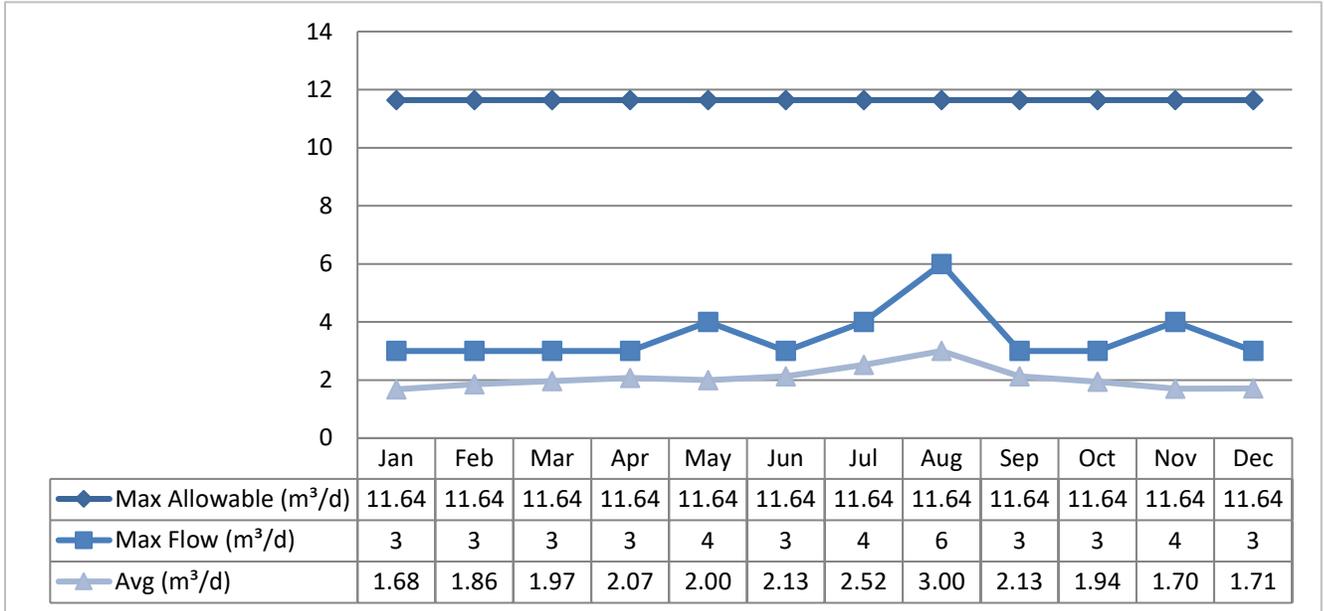
## Monthly Rated Flows (L/s)

Max allowable rate – PTTW – Well # 1



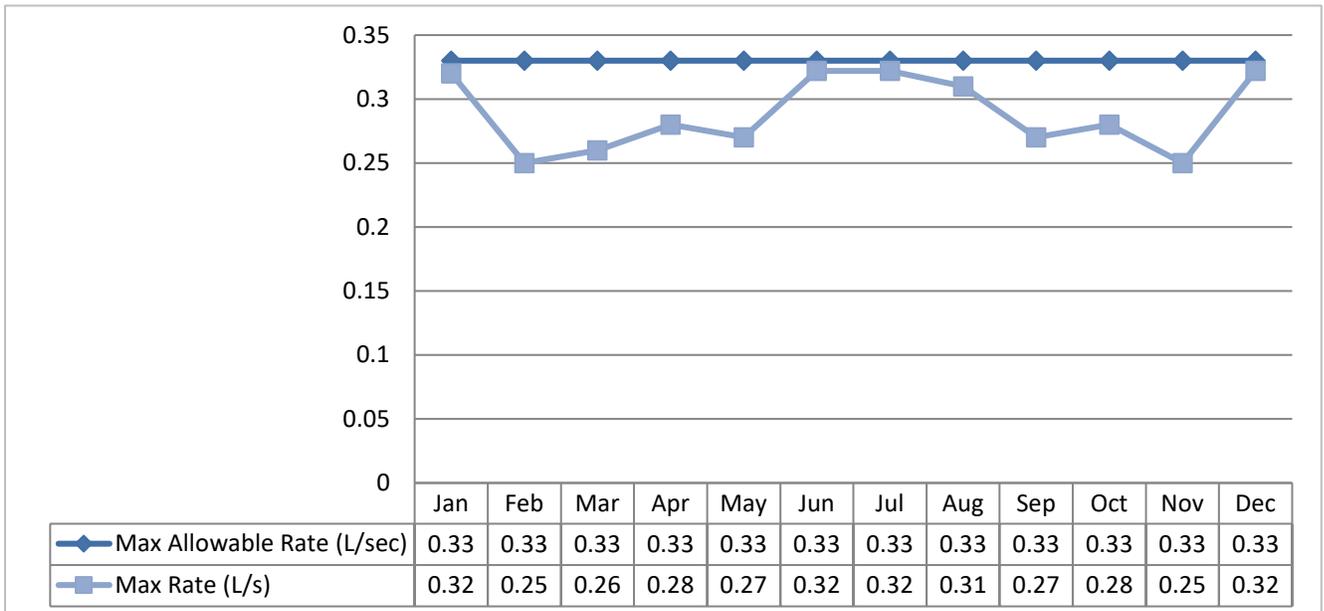
## Total Monthly Flows (m<sup>3</sup>/d)

Max Allowable PTTW – Well # 2



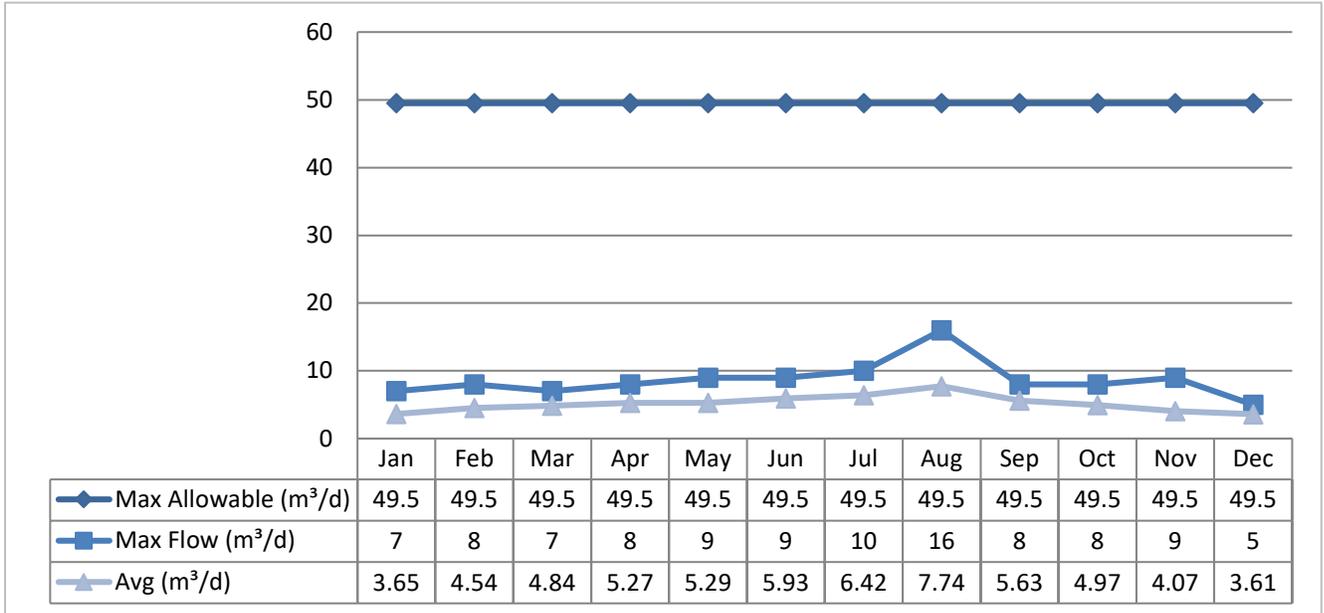
## Monthly Rated Flows (L/s)

Max allowable rate – PTTW – Well #2



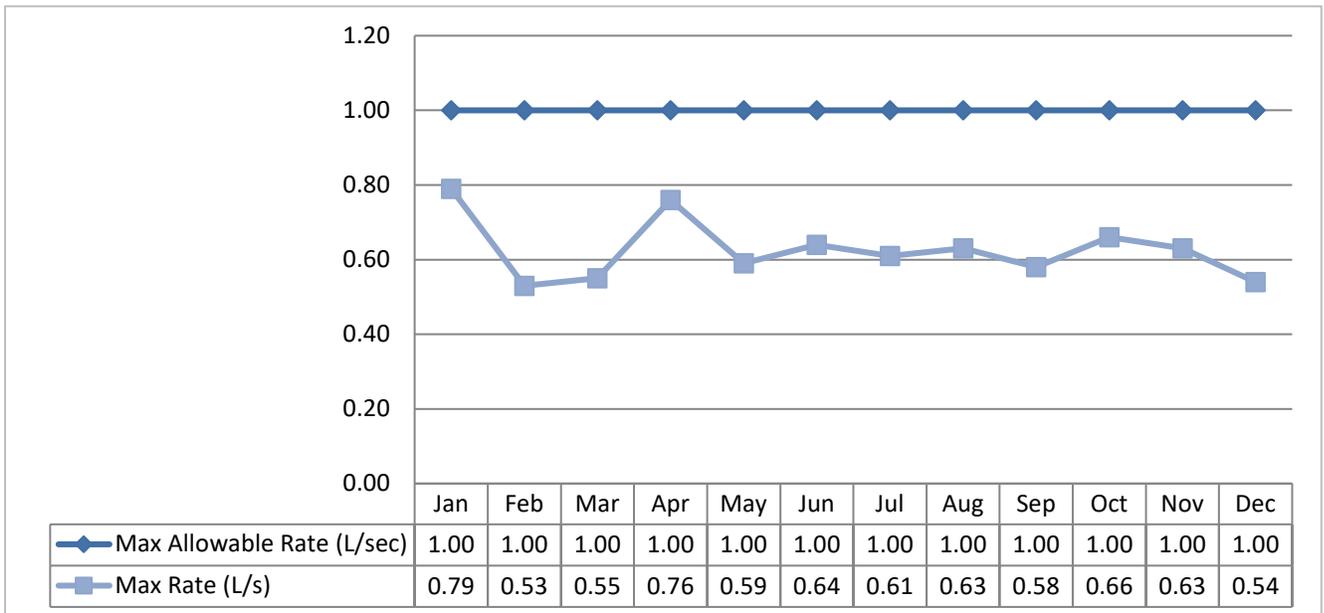
## Total Monthly Flows (m<sup>3</sup>/d)

Max Allowable PTTW – Well #3



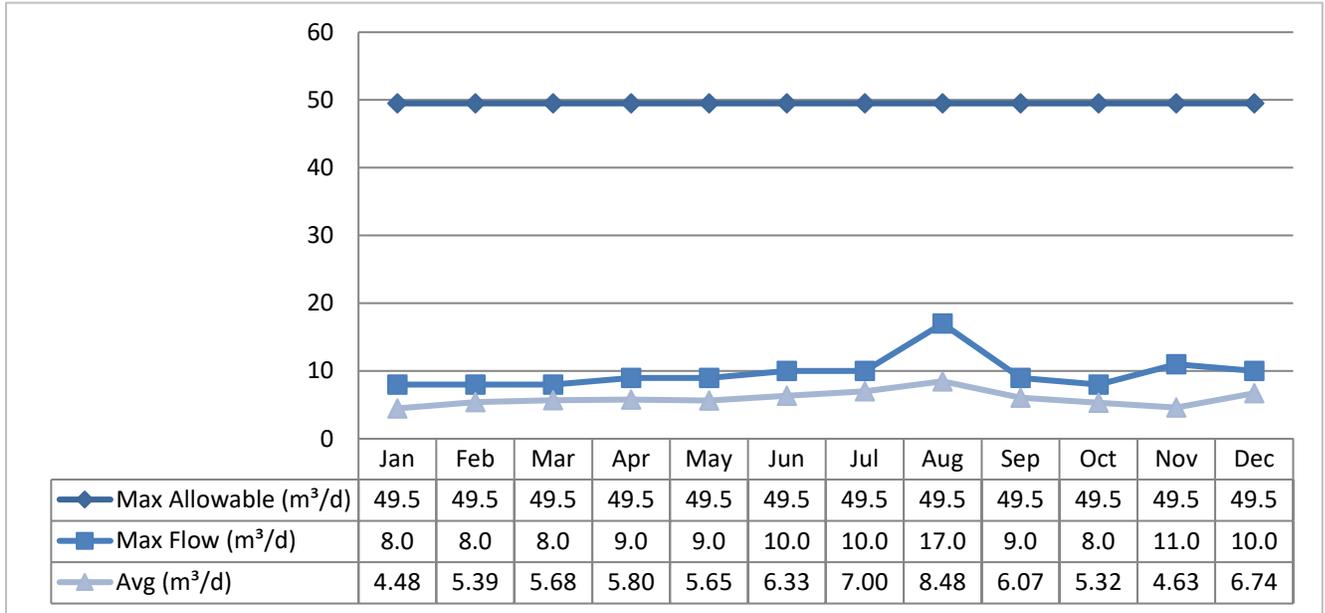
## Monthly Rated Flows (L/s)

Max allowable rate – PTTW – Well #3



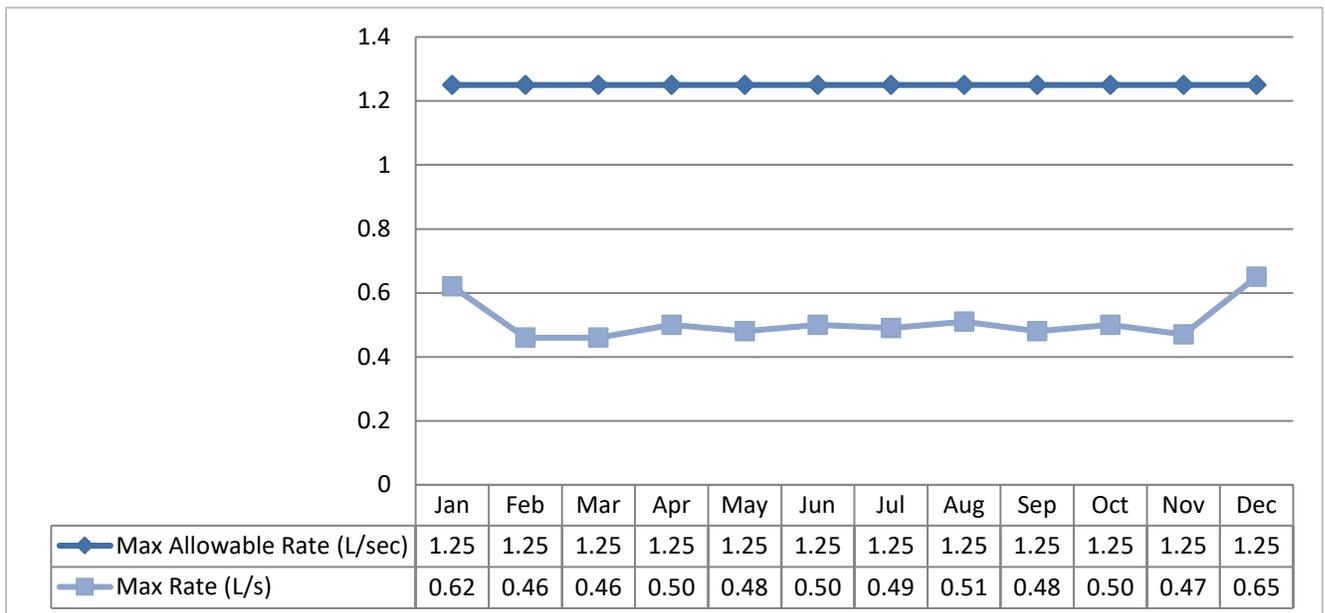
## Total Monthly Flows (m<sup>3</sup>/d)

Max Allowable PTTW – Well #4



## Monthly Rated Flows (L/s)

Max allowable rate – PTTW – Well #4



## Treated Water Flows

The Treated Water flows are regulated under the Municipal Licence. The average consumption for the Davy Drive Drinking Water System during 2025 was: 11.0 m<sup>3</sup>/day.

## Davy Drive Drinking Water System Historical Demands

Year	Number of Connections	Average Daily Demand (m <sup>3</sup> )	Maximum Daily Demand (m <sup>3</sup> /day)	Rated Capacity	Per Capita Consumption*(L/p/day)	
					Average	Maximum
2014	34	17	44	76	192	498
2015	34	13	26	76	149	294
2016	34	13	35	76	152	396
2017	34	12.3	21	76	140	239
2018	34	14.3	23	76	163	261
2019	34	14.5	32	76	165	363
2020	34	16.7	35	76	189	396
2021	34	15.8	25	76	179	283
2022	34	15.9	37	76	179	419
2023	34	13	41	76	147	463
2024	35	10.3	17	76	113	186
2025	35	11.0	36	76	120	396
3 Year Average/Max		11.4	31	76	127	348

\*Based on 2.6 people per dwelling

**Note:** Excluding pipe leaks/breaks & system flushing

**Note:** This calculation was completed based on current connections in the system, growth within the drinking water system has not been considered.

## System Reserve Capacity

In accordance with the MECP Procedure D-5-1, the reserve capacity is calculated by the following formula:

Reserve Capacity = Design Flow – Committed Flow

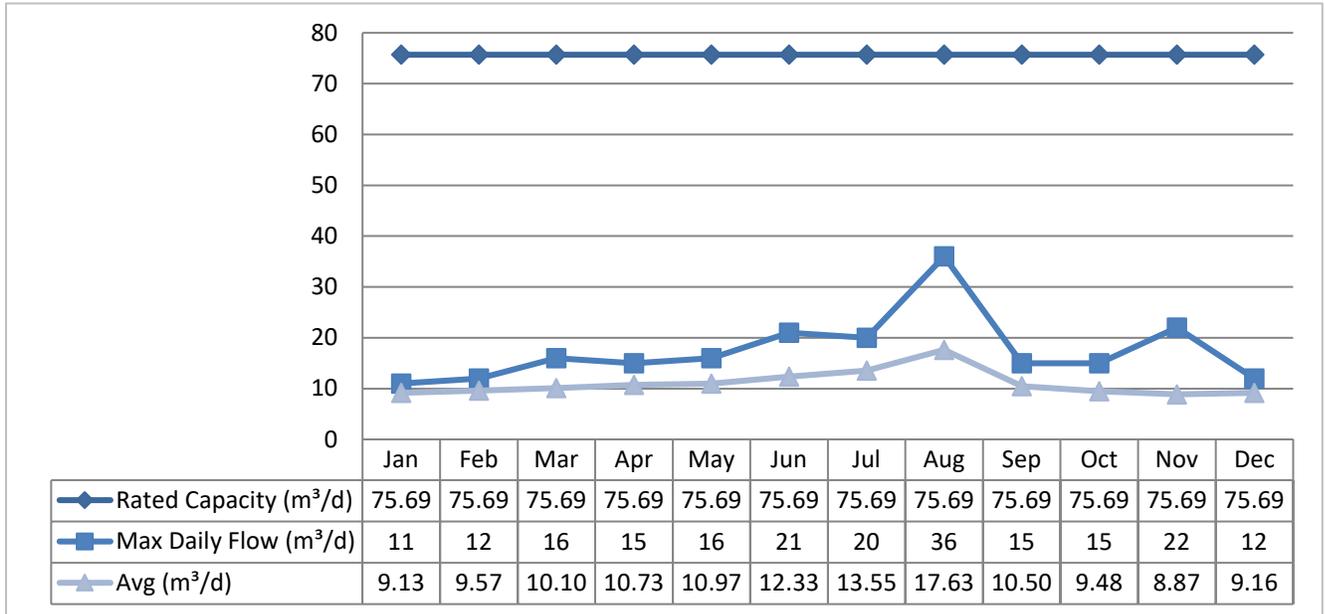
Design flow is the maximum permissible flow approved by the MDWL and/or PTTW. Davy Drive Water Works maximum daily rated capacity is 76 m<sup>3</sup>/day.

The committed flow is the total expected water demand from the existing and proposed connections based on the previous three years of data. The committed number of service connections is: 42. The three-year (2023-2025) maximum per capita water consumption is: 348 L/p/day. At this water consumption rate, the committed flow is: 38 m<sup>3</sup>/day.

As a result, the calculated reserve capacity is: 38 m<sup>3</sup>/day.

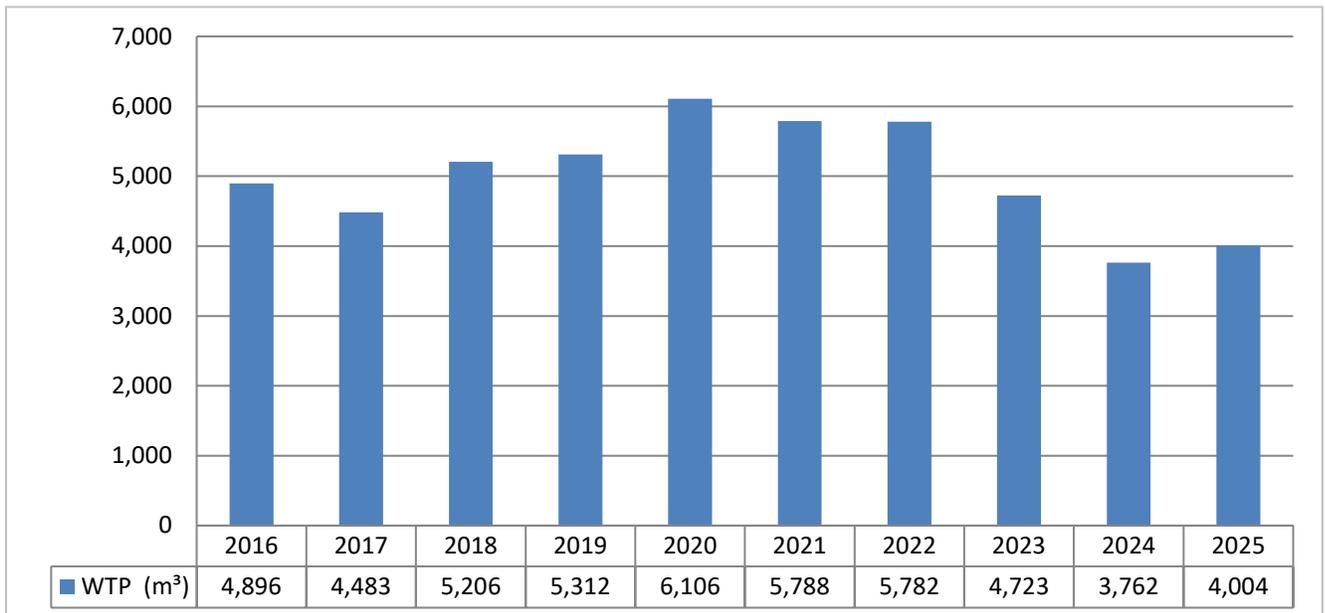
## Monthly Rated Flows

Rated Capacity – MDWL



## Annual Total Flow Comparison

Total Annual m<sup>3</sup>



## 5. Regulatory Sample Results Summary

### Microbiological Testing

	Number of Samples Collected	Range of E. Coli Results		Range of Total Coliform Results		Range of HPC Results	
		Min	Max	Min	Max	Min	Max
Raw Well 1	12	0	0	0	0		
Raw Well 2	14	0	0	0	1		
Raw Well 3	12	0	0	0	4		
Raw Well 4	12	0	1	0	36		
Distribution	27	0	0	0	0	0	3

### Operational Testing

	Number of Samples Collected	Range of Results	
		Minimum	Maximum
Turbidity Well 1 (NTU)	13	2.94	8.41
Turbidity Well 2 (NTU)	13	1.05	7.01
Turbidity Well 3 (NTU)	13	0.17	2.05
Turbidity Well 4 (NTU)	13	0.40	3.11
Turbidity – Filter Line 1 (NTU)	8760	0.02	2.00
Turbidity – Filter Line 2 (NTU)	8760	0.02	2.00
Turbidity – Treated Water (NTU)	8760	0.50	2.04
Treated Water Chlorine	8760	0.00	5.00
Distribution Water Chlorine	105	0.71	2.02
Fluoride (If the DWS provides fluoridation)	N/A	N/A	N/A

**Note:** Record the unit of measure if it is **not** milligrams per litre.

**Note:** For continuous monitors 8760 is used as the number of samples. Spikes recorded by on-line instrumentation were a result of air bubbles and various maintenance/calibration activities. All spikes are reviewed for compliance with O. Reg. 170/03.

### Inorganic Parameters

These parameters are tested as a requirement under O. Reg. 170/03. Sodium and Fluoride are required to be tested every 5 years. Nitrate and Nitrite are tested quarterly and the metals are tested every 5 years as required under O. Reg. 170/03. In the event any of the parameters exceed half of the maximum allowable concentration the parameter is required to be sampled quarterly.

- MAC = Maximum Allowable Concentration as per O. Reg. 169/03
- MDL = Method Detection Limit

Treated Water	Sample Date (yyyy/mm/dd)	Sample Result	MDL	Exceedances	
				MAC	1/2 MAC
Antimony: Sb (ug/L) - TW	2024/08/07	<MDL 0.06	6.0	No	No
Arsenic: As (ug/L) - TW	2024/08/07	<MDL 0.2	10.0	No	No
Barium: Ba (ug/L) - TW	2024/08/07	89.4	1000.0	No	No
Boron: B (ug/L) - TW	2024/08/07	43	5000.0	No	No
Cadmium: Cd (ug/L) - TW	2024/08/07	0.004	5.0	No	No
Chromium: Cr (ug/L) - TW	2024/08/07	0.16	50.0	No	No
Mercury: Hg (ug/L) - TW	2024/08/07	<MDL 0.01	1.0	No	No
Selenium: Se (ug/L) - TW	2024/08/07	<MDL 0.04	50.0	No	No
Uranium: U (ug/L) - TW	2024/08/07	0.447	20.0	No	No
<b>Additional Inorganics</b>					
Fluoride (mg/L) - TW	2022/08/03	0.21	1.5	No	No
Nitrite (mg/L) - TW	2025/02/03	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW	2025/05/05	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW	2025/08/05	<MDL 0.003	1.0	No	No
Nitrite (mg/L) - TW	2025/11/03	<MDL 0.003	1.0	No	No
Nitrate (mg/L) - TW	2025/02/03	0.037	10.0	No	No
Nitrate (mg/L) - TW	2025/05/05	0.034	10.0	No	No
Nitrate (mg/L) - TW	2025/08/05	0.011	10.0	No	No
Nitrate (mg/L) - TW	2025/11/03	0.011	10.0	No	No
Sodium: Na (mg/L) - TW	2025/08/05	23.4	20*	N/A	N/A
Sodium: Na (mg/L) - TW	2025/08/11	25.3	20*	N/A	N/A

\*There is no "MAC" for Sodium. The aesthetic objective for sodium in drinking water is 200 mg/L. The local Medical Officer of Health should be notified when the sodium concentration exceeds 20 mg/L so that this information may be communicated to local physicians for their use with patients on sodium restricted diets.

## Schedule 15 Sampling

The Schedule 15 Sampling is required under O. Reg. 170/03. This system is under reduced sampling. No plumbing samples were collected.

Distribution System	Number of Samples	Range of Results Minimum	Range of Results Maximum	MAC (ug/L)	Number of Exceedances
Alkalinity (mg/L)	2	144	179	N/A	N/A
pH	2	6.9	6.9	N/A	N/A
Lead (ug/l)	2	0.17	0.37	10	0

**Note:** Lead is required to be sampled every 3 years and is scheduled to be sampled in 2028.

## Organic Parameters

These parameters are tested every 5 years as a requirement under O. Reg 170/03. In the event any of the parameters exceed half of the maximum allowable concentration the parameter is required to be sampled quarterly.

Treated Water	Sample Date (yyyy/mm/dd)	Sample Result	MDL	Exceedances	
				MAC	1/2 MAC
Alachlor (ug/L) - TW	2024/08/07	<MDL 0.02	5.00	No	No
Atrazine + N-dealkylated metabolites (ug/L) - TW	2024/08/07	<MDL 0.01	5.00	No	No
Azinphos-methyl (ug/L) - TW	2024/08/07	<MDL 0.05	20.00	No	No
Benzene (ug/L) - TW	2024/08/07	<MDL 0.32	1.00	No	No
Benzo(a)pyrene (ug/L) - TW	2024/08/07	<MDL 0.004	0.01	No	No
Bromoxynil (ug/L) - TW	2024/08/07	<MDL 0.33	5.00	No	No
Carbaryl (ug/L) - TW	2024/08/07	<MDL 0.05	90.00	No	No
Carbofuran (ug/L) - TW	2024/08/07	<MDL 0.01	90.00	No	No
Carbon Tetrachloride (ug/L) - TW	2024/08/07	<MDL 0.17	2.00	No	No
Chlorpyrifos (ug/L) - TW	2024/08/07	<MDL 0.02	90.00	No	No
Diazinon (ug/L) - TW	2024/08/07	<MDL 0.02	20.00	No	No
Dicamba (ug/L) - TW	2024/08/07	<MDL 0.20	120.00	No	No
1,2-Dichlorobenzene (ug/L) - TW	2024/08/07	<MDL 0.41	200.00	No	No
1,4-Dichlorobenzene (ug/L) - TW	2024/08/07	<MDL 0.36	5.00	No	No
1,2-Dichloroethane (ug/L) - TW	2024/08/07	<MDL 0.35	5.00	No	No
1,1-Dichloroethylene (ug/L) - TW	2024/08/07	<MDL 0.33	14.00	No	No

Treated Water	Sample Date (yyyy/mm/dd)	Sample Result	MDL	Exceedances	
				MAC	1/2 MAC
Dichloromethane (Methylene Chloride) (ug/L) - TW	2024/08/07	<MDL 0.35	50.00	No	No
2,4-Dichlorophenol (ug/L) - TW	2024/08/07	<MDL 0.15	900.00	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L) - TW	2024/08/07	<MDL 0.19	100.00	No	No
Diclofop-methyl (ug/L) - TW	2024/08/07	<MDL 0.4	9.00	No	No
Dimethoate (ug/L) - TW	2024/08/07	<MDL 0.06	20.00	No	No
Diquat (ug/L) - TW	2024/08/07	<MDL 1.0	70.00	No	No
Diuron (ug/L) - TW	2024/08/07	<MDL 0.03	150.00	No	No
Glyphosate (ug/L) - TW	2024/08/07	<MDL 1.0	280.00	No	No
Malathion (ug/L) - TW	2024/08/07	<MDL 0.02	190.00	No	No
2-Methyl-4chlorophenoxyacetic Acid (MCPA) (ug/L)	2024/08/07	<MDL 0.12	100	No	No
Metolachlor (ug/L) - TW	2024/08/07	<MDL 0.01	50.00	No	No
Metribuzin (ug/L) - TW	2024/08/07	<MDL 0.02	80.00	No	No
Monochlorobenzene (Chlorobenzene) (ug/L) - TW	2024/08/07	<MDL 0.3	80.00	No	No
Paraquat (ug/L) - TW	2024/08/07	<MDL 1.0	10.00	No	No
PCB (ug/L) - TW	2024/08/07	<MDL 0.04	3.00	No	No
Pentachlorophenol (ug/L) - TW	2024/08/07	<MDL 0.15	60.00	No	No
Phorate (ug/L) - TW	2024/08/07	<MDL 0.01	2.00	No	No
Picloram (ug/L) - TW	2024/08/07	<MDL 1.0	190.00	No	No
Prometryne (ug/L) - TW	2024/08/07	<MDL 0.03	1.00	No	No
Simazine (ug/L) - TW	2024/08/07	<MDL 0.01	10.00	No	No
Terbufos (ug/L) - TW	2024/08/07	<MDL 0.01	1.00	No	No
Tetrachloroethylene (ug/L) - TW	2024/08/07	<MDL 0.35	10.00	No	No
2,3,4,6-Tetrachlorophenol (ug/L) - TW	2024/08/07	<MDL 0.2	100.00	No	No
Triallate (ug/L) - TW	2024/08/07	<MDL 0.01	230.00	No	No
Trichloroethylene (ug/L) - TW	2024/08/07	<MDL 0.44	5.00	No	No
2,4,6-Trichlorophenol (ug/L) - TW	2024/08/07	<MDL 0.25	5.00	No	No

Treated Water	Sample Date (yyyy/mm/dd)	Sample Result	MDL	Exceedances	
				MAC	1/2 MAC
Trifluralin (ug/L) - TW	2024/08/07	<MDL 0.02	45.00	No	No
Vinyl Chloride (ug/L) - TW	2024/08/07	<MDL 0.17	1.00	No	No
Distribution Water					
Trihalomethane: Total (ug/L) Annual Average - DW	2025	63.0	100	No	Yes
HAA Total (ug/L) Annual Average - DW	2025	61.38	80	No	Yes

MAC = Maximum Allowable Concentration as per O. Reg. 169/03

MDL = Method Detection Limit

## Additional Legislated Samples

Date of legal instrument issued	Parameter	Date Sampled	Result	Unit of Measure
No additional legislated samples required.				

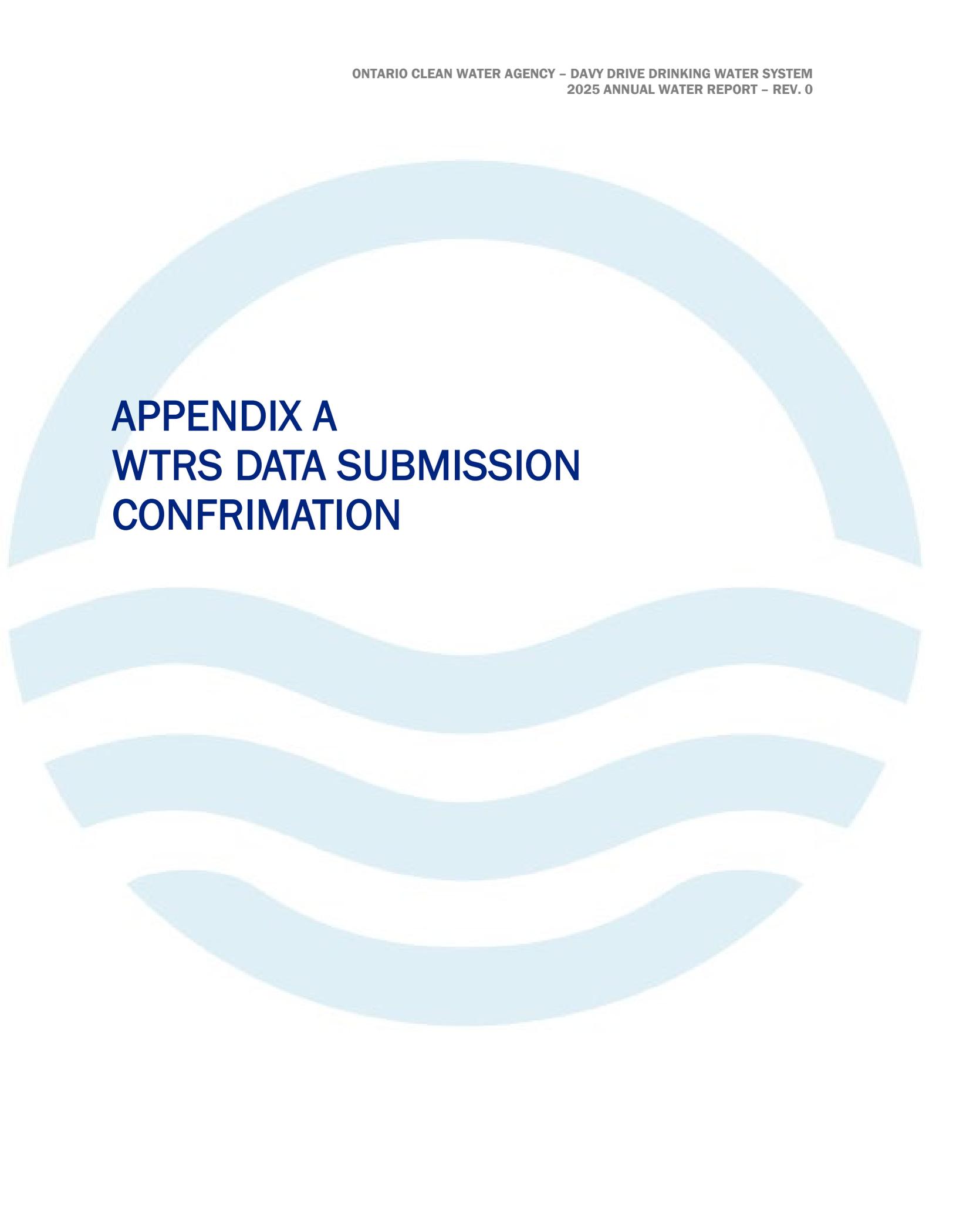
## Inorganic or Organic Parameter Exceedances

List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards.

Parameter	Result Value	Unit of Measure	Date of Sample
Haloacetic Acids Total (ug/L) - DW	61.38	ug/L	2025 Running Annual Average
Trihalomethane Total (ug/L) - DW	63.0	ug/L	2025 Running Annual Average

## 6. Major Maintenance Summary

Item #	Description
1	Replaced mag meter that failed
2	Generator service completed
3	Installed new transducer for reservoir level sensor
4	Well #2 rehab

A large, light blue graphic in the background of the page. It consists of a semi-circular arc at the top, followed by three wavy horizontal bands below it, resembling a stylized sun or water waves.

# **APPENDIX A WTRS DATA SUBMISSION CONFIRMATION**

## WTRS Data Submission Confirmation



Ministry of the Environment,  
Conservation and Parks

| [WT DATA](#) | [USER PROFILE](#) | [CONTACT US](#) | [HELP](#) | [HOME](#) | [LOGOUT](#) |

Location: [WTRS](#) / [WT DATA](#) / [Input WT Record](#) WTRS-WT-008

**Water Taking Data submitted successfully.**

**Confirmation:**

Thank you for submitting your water taking data online.

Permit Number: 7187-AQPS6B  
Permit Holder: THE CORPORATION OF THE TOWNSHIP OF RAMARA.  
Received on: Feb 9, 2026 12:39 PM

This confirmation indicates that your data has been received by the Ministry, but should not be construed as acceptance of this data if it differs from that specified on the Permit Number, assigned to the Permit Holder stated above.

[Print Confirmation](#)      [Return to Main Page](#)

TOWNSHIP OF RAMARA | 2026/02/09  
version: v5.0.0.01 (build#: 28)  
Last modified: 2021/09/22