2025 SECTION 11 ANNUAL REPORT

MIDHURST VALLEY DRINKING WATER SYSTEM

For the period of
January 1st, 2025 to December 31st, 2025

Prepared for the Corporation of the Township of Springwater by the Ontario Clean Water Agency

Township of Springwater

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ONTARIO CLEAN WATER AGENCY
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This report was prepared in accordance with the requirements of *O.Reg 170/03, Section 11, Annual reports* for the following system and reporting period:

Drinking Water System Number:	260097877
Drinking Water System Name:	Midhurst Valley Drinking Water System
Drinking Water System Owner:	The Corporation of the Township of Springwater
Drinking Water System Category:	Large Municipal Residential
Reporting Period:	January 1, 2025 to December 31, 2025

Does your Drinking Water System serve more than 10,000 people?

No

Is your Annual Report available to the public at no charge on a website on the Internet?

Yes

Note: If a large municipal residential system serves more than 10,000 people, the owner of the system shall ensure that a copy of every report prepared under this section is available to the public at no charge on a website on the Internet. O. Reg. 170/03, Section 11. (10)

Location where Summary Report required under O. Reg 170/03, Schedule 22 will be available for inspection. *(O. Reg 170/03, Section 11.(6)(5))*:

- Township of Springwater Municipal Office 2231 Nursery Road, Minesing
- https://www.springwater.ca/en/living-here/water-quality-and-testing.aspx

Note: This is required for large municipal residential systems or small municipal residential systems.

List all Drinking Water Systems (if any), which receive all of their drinking water from your system:

Drinking Water System Name	Drinking Water System Number
N/A	N/A

Did you provide a copy of your annual report to all Drinking Water System owners that are connected to you and to whom you provide all of its drinking water?

N/A

How system users are notified that the annual report is available, and is free of charge:

X	Public access/notice via the web
X	Public access/notice via Government Office
	Public access/notice via a newspaper
X	Public access/notice via Public Request

	Public access/notice via a Public Library
	Public access/notice via other method:

Note: The owner of a drinking water system shall ensure that a copy of an annual report for the system is given, without charge, to every person who requests a copy. ((O.Reg 170/03, Section 11.(7))

Description of Drinking Water System *(O.Reg 170/03, Section 11.(6)(a)):*

The Midhurst Valley Drinking Water System (DWS) was classified by OWWCO on July 9, 2024 as a Class II Water Treatment and Class II Water Distribution and Supply Subsystem. It is categorized as a Large Municipal Residential Drinking Water System under O.Reg 170/03. The system came online in December, 2022 and in 2025 serviced an approximate population of 695 persons in the newly developed Midhurst Valley subdivision in the Township of Springwater. The system is comprised of two production wells, two pumphouses and one water treatment plant, one (1) in-ground storage reservoir and clearwell that supplies water to the distribution system.

The raw water is supplied from two groundwater production wells (Well TW22 and Well TW19). The water pumped from the wells passes through a cartridge filter (for pre-treatment for the Ion Exchange Treatment System), then through the Ion Exchange Treatment System (for the reduction of Nitrates). Water is treated with Sodium Hypochlorite (for primary and secondary disinfection) and UV disinfection. The treated water is stored in two celled below grade reservoirs, the second of which was brought online in 2025. The treated water is distributed by the high lift pumping system (with clearwell) into the distribution system and operated based on system pressure. Online equipment continuously monitors and records free chlorine, UV Intensity and flows. The treatment plant is equipped with standby power in the event of a power failure.

List of water treatment chemicals used by the system during the reporting period *(O.Reg 170/03, Section 11.(6)(a)):*

- Sodium Hypochlorite 12% Solution

Significant expenses were incurred to:

	Install required equipment
	Repair required equipment
	Replace required equipment
X	No significant expenses were incurred

Description of major expenses during the reporting period to install, repair or replace required equipment (O.Reg 170/03, Section 11.(6)(e)):

- N/A. System is a new build as of late 2022, expenses incurred as part of commissioning/startup/warranty period are not included in this report.

Summary of any reports/notices submitted to the Ministry and/or Spills Action Centre in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 during the reporting period, including a description of any corrective actions taken under Schedule 17 or 18 *(O. Reg 170/03, Section 11.(6)(b),(d):*

Incident Date (yyyy/mm/dd)	Parameter/ Notice of	Result & Unit	Reporting Summary, Corrective Actions & Resolution
N/A	N/A	N/A	N/A

Table 1. Microbiological testing done under the Schedule 11 of Regulation 170/03 during this reporting period *(O.Reg 170/03, Section 11.(6)(c)).*

Location	Number of Samples	Range of E. Coli or Fecal Results		Range of Total Coliform Results		Number of HPC Samples	Range of HPC Samples	
		Min.	Max.	Min.	Max.		Min.	Max.
RW – Well #1[1A]	52	0	0	0	0	N/A	N/A	N/A
RW – Well #2[1A]	52	0	0	0	0	N/A	N/A	N/A
Treated Water[1B]	52	0	0	0	0	52	<10	10
Distribution[1C]	119	0	0	0	0	52	<10	20

Note: RW = Raw Water, TW = Treated Water, HPC = Heterotrophic Plate Count

Note: Units for E.Coli or Fecal Results are cfu/100 mL, units for Total Coliform Results are cfu/100 mL, units for HPC results are cfu/1mL

[1A]O.Reg 170/03, Schedule 10-4. (1)(3) requires for a large municipal residential system that a water sample is taken at least once every week from the drinking water system's raw water, before any treatment is applied to the water and tested for E.Coli and total coliforms.

[1B]O Reg 170/03, Schedule 10-3 requires for a large municipal residential system that a treated water sample is taken at least once every week and tested for E.Coli, total coliforms and general bacteria population expressed as colony counts on a heterotrophic count (HPC).

[1C]O.Reg. 170/03 Schedule 10-2.(1)(2)(3) requires that a system that serves 100,000 people or less, at least eight distribution samples, plus one additional sample for every 1,000 people served by the system to be taken every month, with at least one of the samples being taken in each week and be tested for E.Coli, Total Coliforms. At least 25 percent of the samples required must be tested for general bacteria population expressed as colony counts on heterotrophic plate count (HPC). The number of people served by the system is 695 (as confirmed with the Owner on December 12, 2024) and therefore requires at minimum eight (8) distribution samples per month.

Table 2. Operational testing done under Schedule 7 of Regulation 170/03 during the period covered by this Annual Report *(O. Reg 170/03, Section 11.(6)(c)).*

Parameter & Location	Number of Samples	Range of Results	
		Min.	Max.
Turbidity, In-House (NTU) – Well #1[2A]	12	0.20	0.94
Turbidity, In-House (NTU) – Well #2[2A]	12	0.80	2.70
Free Chlorine Residual, Treated - TW (Continuous) [mg/L][2B]	8760	0.69	2.59
Free Chlorine Residual, Distribution (Grab) [mg/L][2C]	365	0.72	1.67

Note: The number of samples used for continuous monitoring units is 8760.

[2A]O.Reg 170/03 Schedule 7-3.(1)(1.1) requires a raw water sample be taken at least once every month from each well that is supplying water to the system and tested for turbidity.

[2B]O.Reg 170/03 Schedule 7-2.(1) requires a drinking water system that provides chlorination for primary disinfection to sample and test for free chlorine residual with continuous monitoring equipment in the treatment process at or near a location where the intended contact time has just been completed.

[2C]O.Reg 170/03 Schedule 7-2.(3) requires a large municipal residential system that provides secondary disinfection to take at least seven distribution samples each week and immediately tested for free chlorine residual, if the system provides chlorination and does not provide chloramination

Table 3. Summary of additional testing and sampling results carried out in accordance with the requirement of an approval, municipal drinking water licence or order (including OWRA) or other legal instrument. *(O. Reg 170/03, Section 11.(6)(c))*

Legal Instrument & Issue Date (yyyy/mm/dd)	Parameter	Date Sampled (yyyy/mm/dd)	Result	Unit of Measure
N/A	N/A	N/A	N/A	N/A

Table 4. Summary of Inorganic parameters tested during this reporting period or the most recent sample results *(O.Reg 170/03, Section 11.(6)(c))*

Parameter & Location	Sample Date[4A] (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration (MAC)	Exceedance of MAC
Antimony: Sb (µg/L) - TW	2024/02/12	< MDL 0.6	6.0	No
Arsenic: As (µg/L) - TW	2024/02/12	< MDL 0.2	10.0	No
Barium: Ba (µg/L) - TW	2024/02/12	49.2	1000.0	No
Boron: B (µg/L) - TW	2024/02/12	5	5000.0	No
Cadmium: Cd (µg/L) - TW	2024/02/12	0.003	5.0	No
Chromium: Cr (µg/L) - TW	2024/02/12	0.49	50.0	No
Mercury: Hg (µg/L) - TW	2024/02/12	< MDL 0.01	1.0	No

Selenium: Se (µg/L) - TW	2024/02/12	< MDL 0.04	50.0	No
Uranium: U (µg/L) - TW	2024/02/12	0.749	20.0	No
Fluoride (mg/L) - TW	2023/05/15[4B]	0.12	1.5	No
Nitrite (mg/L) - TW	2025/02/10	< MDL 0.003	1.0	No
Nitrite (mg/L) - TW	2025/05/20	< MDL 0.003	1.0	No
Nitrite (mg/L) - TW	2025/08/19	< MDL 0.003	1.0	No
Nitrite (mg/L) - TW	2025/11/10	< MDL 0.003	1.0	No
Nitrate (mg/L) - TW	2025/02/10	6.35	10.0	No
Nitrate (mg/L) - TW	2025/05/20	1.94	10.0	No
Nitrate (mg/L) - TW	2025/08/19	1.96	10.0	No
Nitrate (mg/L) - TW	2025/11/10	1.97	10.0	No

Note: TW = Treated Water, DW = Distribution Water, MDL = Minimum Detection Limit, MAC = Maximum Allowable Concentration

[4A]The owner of a large municipal residential system shall ensure that at least one water sample for inorganics is taken every 36 months, if the system obtains water from a raw water supply that is ground water (O.Reg 170/03, Schedule 13-2(1)(b)) The last set of samples were collected and tested in 2024, the next set of samples are scheduled to be collected and tested in 2027.

[4B]Fluoride is reportable every 60 months. The first set of Fluoride samples for the systems were collected and tested in 2023. The next set of samples is schedule to be collected and tested in 2028.

Parameter & Location	Sample Date (yyyy/mm/dd)	Sample Result	Aesthetic Objective (AO)	Exceedance	
				AO	> 20 mg/L
Sodium: Na (mg/L) - TW	2023/05/15[4C]	14.1	200	N/A	N/A

Note: MDL = Minimum Detection Limit, TW = Treated Water

Note: There is no regulatory Maximum Allowable Concentration (MAC) Sodium. The aesthetic objective (AO) 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.

[4C]Sodium is reportable every 60 months. The first set of sodium samples for the system were collected and tested in 2023, the next set of samples is scheduled to be tested in 2028.

Table 5: Summary of lead testing under Schedule 15.1 during this reporting period (O.Reg 170/03, Section 11.(6)(g))

Location/Type & Parameter	Number of Samples	Range of Results		Number of Lead Exceedances (MAC = 10 µg/L)
		Min.	Max.	
Period: January 1 to April 15				
Plumbing – Lead (µg/L)[5A]	N/A	N/A	N/A	N/A
Distribution – Lead (µg/L)[5B]	2	0.08	0.08	0

Distribution – Alkalinity (mg/L as $CaCO_3$)	2	218	220	N/A
Distribution – pH	2	8.20	8.40	N/A
Period: June 15 to October 15				
Plumbing – Lead (µg/L)[5A]	N/A	N/A	N/A	N/A
Distribution – Lead (µg/L)[5B]	2	0.08	0.23	0
Distribution – Alkalinity (mg/L as $CaCO_3$)	2	201	235	N/A
Distribution – pH	2	7.10	7.20	N/A
Period: December 15 to 31				
Plumbing – Lead (µg/L)[5A]	N/A	N/A	N/A	N/A
Distribution – Lead (µg/L)[5B]	N/A	N/A	N/A	N/A
Distribution – Alkalinity (mg/L as $CaCO_3$)	N/A	N/A	N/A	N/A
Distribution - pH	N/A	N/A	N/A	N/A

Note: this is required for large municipal residential systems, small municipal residential systems or non-municipal year-round residential system. (O.Reg 170/03, Section 11.(6)(g))

[5A]As per O.Reg 170/03 Schedule 15.1-5 (9) (10), the system qualified for relief from plumbing on January 31, 2025, as in each of the two consecutive periods of sampling the results showed zero of the samples exceeded the standard prescribed for lead. This system is now on a reduced lead sampling plan (O.Reg 170/03). Last plumbing lead samples were collected (April 13, 2023, September 11, 2023, February 13, 2024, and September 5, 2024)

[5B]This system follows a reduced sampling schedule as of January 31, 2025 (O.Reg 170/03, Section 15.1.5) as the system serves less than 50,000 people, and in each of the two consecutive periods of sampling the results showed zero of the samples exceeded the standard prescribed for lead. Distribution lead samples are collected every 36 months. The most recent set of distribution lead samples were collected within the winter period of December 15, 2024 to April 15, 2025 and summer period of June 15, 2025 to October 15, 2025. The next set of distribution lead samples is scheduled to be collected within the winter period of December 15, 2027 to April 15, 2028 and summer period of June 15, 2028 to October 15, 2028.

Table 6: Summary of Organic parameters sampled during this reporting period or the most recent sample results *(O.Reg 170/03, Section 11.(6)(c)).*

Parameter & Location	Sample Date (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration (MAC)	Exceedance of MAC
1,1-Dichloroethylene (ug/L)-TW	2024/02/12	< MDL 0.33	14	No
1,2-Dichlorobenzene (ug/L)-TW	2024/02/12	< MDL 0.41	200	No
1,2-Dichloroethane (ug/L)-TW	2024/02/12	< MDL 0.35	5	No
1,4-Dichlorobenzene (ug/L)-TW	2024/02/12	< MDL 0.36	5	No
2,3,4,6-Tetrachlorophenol (ug/L)-TW	2024/02/12	< MDL 0.2	100	No
2,4,6-Trichlorophenol (ug/L)-TW	2024/02/12	< MDL 0.25	5	No
2,4-Dichlorophenol (ug/L)-TW	2024/02/12	< MDL 0.15	900	No

Parameter & Location	Sample Date (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration (MAC)	Exceedance of MAC
2,4-Dichlorophenoxy acetic acid (2,4-D) (ug/L)-TW	2024/02/12	< MDL 0.19	100	No
2-methyl-4-chlorophenoxyacetic acid (MCPA) (ug/L)-TW	2024/02/12	< MDL 0.12	100	No
Alachlor (ug/L) -TW	2024/02/12	< MDL 0.02	5	No
Atrazine + N-dealkylated metabolites (ug/L)-TW	2024/02/12	< MDL 0.01	5	No
Azinphos-methyl (ug/L)-TW	2024/02/12	< MDL 0.05	20	No
Benzene (ug/L)-TW	2024/02/12	< MDL 0.32	1	No
Benzo(a)pyrene (ug/L)-TW	2024/02/12	< MDL 0.004	0.01	No
Bromoxynil (ug/L)-TW	2024/02/12	< MDL 0.33	5	No
Carbaryl (ug/L)-TW	2024/02/12	< MDL 0.05	90	No
Carbofuran (ug/L) -TW	2024/02/12	< MDL 0.01	90	No
Carbon Tetrachloride (ug/L) -TW	2024/02/12	< MDL 0.17	2	No
Chlorpyrifos (ug/L) -TW	2024/02/12	< MDL 0.02	90	No
Diazinon (ug/L)-TW	2024/02/12	< MDL 0.02	20	No
Dicamba (ug/L)-TW	2024/02/12	< MDL 0.2	120	No
Dichloromethane (Methylene Chloride) (ug/L)-TW	2024/02/12	< MDL 0.35	50	No
Diclofop-methyl (ug/L)-TW	2024/02/12	< MDL 0.4	9	No
Dimethoate (ug/L)-TW	2024/02/12	< MDL 0.06	20	No
Diquat (ug/L)-TW	2024/02/12	< MDL 1	70	No
Diuron (ug/L)-TW	2024/02/12	< MDL 0.03	150	No
Glyphosate (ug/L)-TW	2024/02/12	< MDL 1	280	No
Malathion (ug/L)-TW	2024/02/12	< MDL 0.02	190	No
Metolachlor (ug/L)-TW	2024/02/12	< MDL 0.01	50	No
Metribuzin (ug/L)-TW	2024/02/12	< MDL 0.02	80	No
Monochlorobenzene (Chlorobenzene) (ug/L)-TW	2024/02/12	< MDL 0.3	80	No
Paraquat (ug/L)-TW	2024/02/12	< MDL 1	10	No
PCB (ug/L)-TW	2024/02/12	< MDL 0.04	3	No
Pentachlorophenol (ug/L)-TW	2024/02/12	< MDL 0.15	60	No
Phorate (ug/L)-TW	2024/02/12	< MDL 0.01	2	No
Picloram (ug/L)-TW	2024/02/12	< MDL 1	190	No
Prometryne (ug/L)-TW	2024/02/12	< MDL 0.03	1	No
Simazine (ug/L)-TW	2024/02/12	< MDL 0.01	10	No
Terbufos (ug/L)-TW	2024/02/12	< MDL 0.01	1	No
Tetrachloroethylene (ug/L)-TW	2024/02/12	< MDL 0.35	10	No
Triallate (ug/L) -TW	2024/02/12	< MDL 0.01	230	No

Parameter & Location	Sample Date (yyyy/mm/dd)	Sample Result	Maximum Allowable Concentration (MAC)	Exceedance of MAC
Trichloroethylene (ug/L)-TW	2024/02/12	< MDL 0.44	5	No
Trifluralin (ug/L)-TW	2024/02/12	< MDL 0.02	45	No
Vinyl Chloride (ug/L)-TW	2024/02/12	< MDL 0.17	1	No
Trihalomethane: Total Annual Average (µg/L) - DW	2025 (Quarterly)	3.43	100.00	No
Haloacetic Acid: Total Annual Average (µg/L) - DW	2025 (Quarterly)	5.3 < MDL	80.00	No

Note: TW = Treated Water, DW = Distribution Water, MDL = Minimum Detection Limit, MAC = Maximum Allowable Concentration, HAA = Haloacetic Acids

Note: The owner of a large municipal residential system shall ensure that at least one water sample for organics is taken every 36 months, if the system obtains water from a raw water supply that is ground water (O.Reg 170/03, Schedule 13-4(1)(b)). The last set of samples were collected and tested in 2024, the next set of samples are scheduled to be collected and tested in 2027.

Table 7: List of Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards for the reporting period.

Parameter & Location	Sample Date (yyyy/mm/dd)	Sample Result
Nitrate (mg/L) - TW	2025/02/10	6.35

Note: There are no regulatory corrective actions required if an inorganic or organic parameter exceeds half the standard. This half exceedance has been noted and will continued to be monitored according to O.Reg 170/03 Sch. 13-7.