HAWKESBURY

Drinking Water System
2025
Annual Report

Prepared by the Environmental Service
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Introduction

This Annual Drinking Water Report has been prepared to satisfy Section 11 of O. Reg. 170/03 Drinking Water Systems Regulation, under *the Safe Drinking Water Act, 2002*. It describes the Hawkesbury Drinking Water System, details the water quality testing results, any non-compliances findings and adverse conditions that may have occurred from January 1 to December 31, 2025.

The Corporation of the Town of Hawkesbury is engaged to provide safe and clean drinking water to all its citizens and customers, to remain compliant with all regulatory requirements and to maintain and continually improve its drinking water quality management system. All efforts have been made to ensure the information presented is accurate.

Drinking Water System Description

The Hawkesbury Drinking Water System is categorized as a Large Municipal Residential System. It provides drinking water to the citizens of the Town of Hawkesbury and to three stand-alone systems owned by the Township of Champlain.

The key elements of Hawkesbury's Drinking Water System are:

- A raw water pumping station,
- A drinking water treatment plant,
- A water distribution system for the Town of Hawkesbury,
- A remote standpipe water storage in the Town of Hawkesbury completed with a booster pumping system and secondary disinfection system,
- A pipeline connection to supply the Town of Vankleek Hill,
- A pipeline connection to supply the Village of L'Orignal, and
- A pipeline connection to supply the Laurentian Park

Hawkesbury Drinking Water System Profile Description	
Drinking Water System Number	220002832
Drinking Water System Name	Hawkesbury Drinking Water System
Drinking Water System Owner & Operating Authority	The Corporation of the Town of Hawkesbury
Municipal Drinking Water Licence	177-101
Drinking Water Works Permit	177-201
Permit to Take Water	1862-D3HQRQ
Drinking Water System Category	Large Municipal Residential System
Water Source	Ottawa River
Population Served	>10,000

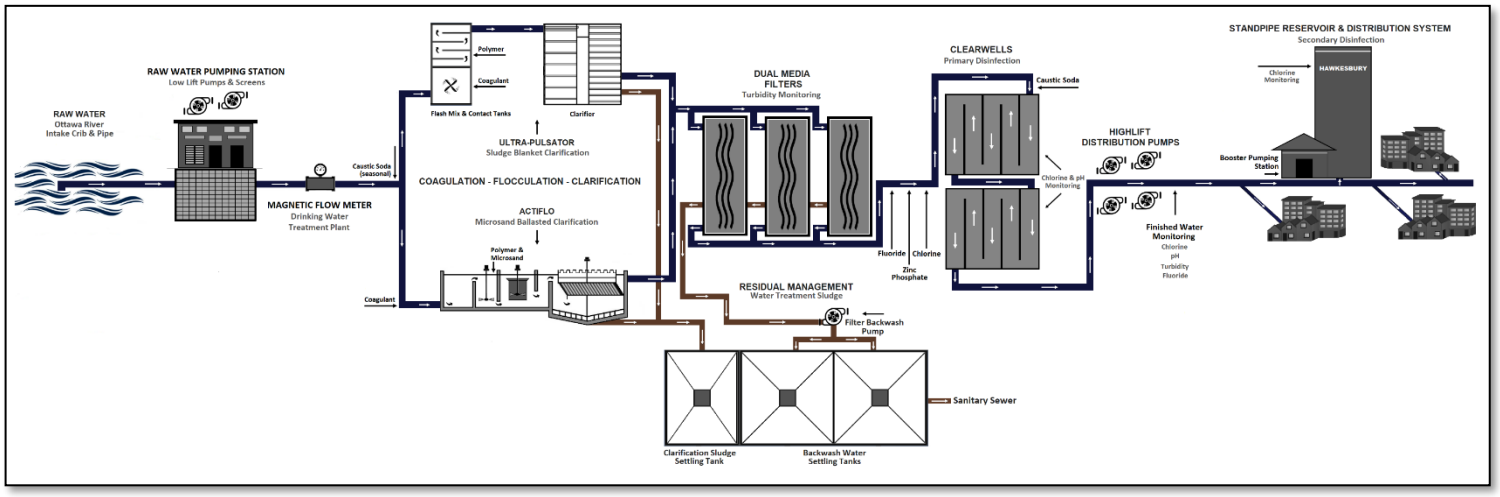
The three stand-alone systems owned by the Township of Champlain are as follows and are all operated under the Ontario Clean Water Agency (OCWA):

Drinking Water System Receivers	
Township of Champlain (L'Orignal)	260037102
Township of Champlain (Vankleek Hill)	260002395
Township of Champlain (Park Laurentien)	260090012

Drinking Water System Process

The water is drawn from the Ottawa River through the intake pipe from the low lift pumping station and flows into the drinking water treatment plant where it undergoes a treatment process based on coagulation and flocculation followed by clarification and filtration.

The plant is equipped with one Ultrapulsator clarifier and two new microsand ballasted clarifiers, three high-rate sand/anthracite filters, a two-cell clear well, four high lift pumps that supplies treated water into the Town's 35 km water distribution system and a 5,400 m^3 standpipe water storage.



This process flow diagram is for reference only and represents a high-level overview of the system.

Water Treatment Chemicals Used

Every chemical used in the operations and treatment processes of the Hawkesbury Drinking Water System satisfies the NSF International (NSF) and American National Standards Institute (ANSI) in contact with drinking water applicable standards.

The following water treatment chemicals were used during this reporting period:

Treatment Chemical Name	Role
Poly Hydroxy Aluminum Sulfate *(PAS-8 – January to May)*	Coagulant for treatment process
Aluminum Chloride Hydroxide Sulphate *(PAX-XL6 – June to December)*	Coagulant for treatment process
Sodium Silicate *(January to April)*	To form activated silica, a coagulant aid
Sodium Aluminate *(January to April)*	To form activated silica, a coagulant aid
Polymer *(HYDREX™ 3551 – September to December)*	Flocculation agent
Liquid Chlorine *(compressed gas)*	Primary disinfection
Hydrofluosilicic Acid	Help prevent tooth decay
Zinc Orthophosphate	Corrosion control in the distribution system
Caustic Soda	pH adjustment
Sodium Hypochlorite	Secondary disinfection of the distribution system

Major Expenses

The major expenses incurred for the maintenance and operations of the drinking water treatment system are as follows:

- High lift pump motor 150 HP engine reconditioning
- Water treatment plant & raw water station roof section repair
- Water treatment plant door and frame replacement
- CO and NO2 detection system installation in the highlift pump room
- New generator and transfer switch at the raw water station
- Several water service curb box repairs needing excavation
- 3 watermain break repairs, 1 street valve and 1 hydrant replacement
- Catherine Street watermain replacement and new hydrant installations
- Two microsand ballasted clarifiers (Actiflo®) & polymer system project

Annual Water Quality Summary

In-plant samples are collected and tested on site throughout the day by certified operators, while on-line systems continuously monitor chlorine residuals, turbidity and other quality-related parameters. Additionally, samples are collected for bacteriological, inorganic, organic and other chemical parameters, as required by O. Reg. 170/03. These sample analyses are performed by Caduceon Environmental Laboratories, accredited by the Canadian Association for laboratory Accreditation and licensed by the Ministry of the Environment, Conservation and Parks (MECP).

The following tables describe the water quality monitoring, both regulatory and operational, that has been performed during this reporting period.

Microbiological testing performed under Schedule 10 of Reg. 170/03

Sample Type	Parameter	Total Analysis	Range Results	Units	# Analysis Exceeding Standard
Raw	E. coli	52	0 – 29	CFU/100 mL	*n/a*
	Total coliforms	52	10 – 16,000	CFU/100 mL	*n/a*
Treated	E. coli	52	0 - 0	CFU/100 mL	0
	Total coliforms	52	0 - 0	CFU/100 mL	0
	HPC	52	2 - 2	CFU/mL	*n/a*
Distribution	E. coli	423	0 - 0	CFU/100 mL	0
	Total coliforms	423	0 - 0	CFU/100 mL	0
	HPC	156	2 - 2	CFU/mL	*n/a*

Operational testing performed under Schedule 6 & 7 of Reg. 170/03

Sample Type	Parameter	# Samples	Range Results	Units
Raw	Turbidity	Grab - 723	1.84 – 33.00	NTU
Treated	Turbidity	Continuous monitoring	0.04 - 0.14	NTU
Treated	Turbidity	Grab - 728	0.03 – 0.19	NTU
Treated	Free Chlorine Residual	Continuous monitoring	0.84 - 1.27	mg/L
Treated	Free Chlorine Residual	Grab - 728	0.75 – 1.29	mg/L
Treated	Fluoride	Continuous monitoring	0.20 - 0.73	mg/L
Treated	Fluoride	Grab - 722	0.09 – 0.88	mg/L
Distribution	Free Chlorine Residual	Grab - 733	0.18 - 1.65	mg/L
Note for Continuous Monitoring (zero days offline): Number of Grab Samples = 24 samples/day x 365 days/year (or 366 days/leap year) = 8760 (or 8784)				

Residual Management testing performed under Schedule C of the Municipal Drinking Water Licence

Legal Instrument Issue Date	Parameter	Total Analysis	Annual Average	Units	Maximum Annual Allowed Concentration
April 25, 2005	Total Suspended Solids	12	4	mg/L	25

Harmful Algal Blooms Monitoring performed under Schedule C of the Municipal Drinking Water Licence

The Hawkesbury Drinking Water System monitored for harmful algal blooms (HAB), as per its approved HAB monitoring plan, between June 1 and October 31, at the raw water source intake. During that period, no blooms were observed or reported.

Additionally, proactive raw water sampling for Microcystin DM was performed as per the plan.

Sample Type	Parameter	Total Analysis	Range Results	Units	Exceeded the Standard
Raw water	Microcystin DM	3	<0.15 – <0.15	µg/L	None

Summary of Inorganic parameters identified under Schedule 23, performed per Schedule 13

Parameter	Date Sampled	Result	Units	Exceeded the Standard	Exceeded Half the Standard
Antimony	2025-09-15	< 0.0001	mg/L	No	No
Arsenic	2025-09-15	0.0003	mg/L	No	No
Barium	2025-09-15	0.015	mg/L	No	No
Boron	2025-09-15	0.007	mg/L	No	No
Cadmium	2025-09-15	< 0.000015	mg/L	No	No
Chromium	2025-09-15	< 0.0010	mg/L	No	No
Mercury	2025-09-15	<0.00002	mg/L	No	No
Selenium	2025-09-15	< 0.001	mg/L	No	No
Uranium	2025-09-15	< 0.00005	mg/L	No	No

Summary of Organic parameters identified under Schedule 24, performed per Schedule 13

Parameter	Date Sampled	Result	Units	Exceeded the Standard	Exceeded Half The Standard
Alachlor	2025-09-15	< 0.3	µg/L	No	No
Atrazine + N-dealkylated metabolites	2025-09-15	<0.5	µg/L	No	No
Azinphos-methyl	2025-09-15	<1.0	µg/L	No	No
Benzene	2025-09-16	<0.5	µg/L	No	No
Benzo(a)pyrene	2025-09-15	<0.006	µg/L	No	No
Bromoxynil	2025-09-15	<0.5	µg/L	No	No
Carbaryl	2025-09-15	<3.0	µg/L	No	No
Carbofuran	2025-09-15	<1.0	µg/L	No	No
Carbon Tetrachloride	2025-09-16	<0.2	µg/L	No	No
Chlorpyrifos	2025-09-15	<0.5	µg/L	No	No
Diazinon	2025-09-15	<1.0	µg/L	No	No
Dicamba	2025-09-15	<1.0	µg/L	No	No
1,2-Dichlorobenzene	2025-09-16	<0.5	µg/L	No	No
1,4-Dichlorobenzene	2025-09-16	<0.5	µg/L	No	No
1,2-Dichloroethane	2025-09-16	<0.5	µg/L	No	No
1,1-Dichloroethylene (vinylidene chloride)	2025-09-16	<0.5	µg/L	No	No
Dichloromethane	2025-09-16	<5.0	µg/L	No	No
2-4 Dichlorophenol	2025-09-15	<0.2	µg/L	No	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	2025-09-15	<1.0	µg/L	No	No
Diclofop-methyl	2025-09-15	<0.9	µg/L	No	No
Dimethoate	2025-09-15	<1.0	µg/L	No	No
Diquat	2025-09-15	<5.0	µg/L	No	No
Diuron	2025-09-15	<5.0	µg/L	No	No
Glyphosate	2025-09-15	<25.0	µg/L	No	No
Malathion	2025-09-15	<5.0	µg/L	No	No
MCPA	2025-09-15	<10	µg/L	No	No
Metolachlor	2025-09-15	<3.0	µg/L	No	No
Metribuzin	2025-09-15	<3.0	µg/L	No	No
Monochlorobenzene	2025-09-16	<0.5	µg/L	No	No
Paraquat	2025-09-15	<1.0	µg/L	No	No
Pentachlorophenol	2025-09-15	<0.2	µg/L	No	No
Phorate	2025-09-15	<0.3	µg/L	No	No
Picloram	2025-09-15	<5.0	µg/L	No	No
Polychlorinated Biphenyls (PCB)	2025-09-15	<0.05	µg/L	No	No
Prometryne	2025-09-15	<0.1	µg/L	No	No
Simazine	2025-09-15	<0.5	µg/L	No	No

Summary of Organic parameters identified under Schedule 24, performed per Schedule 13 *continue*:

Parameter	Date Sampled	Result	Units	Exceeded the Standard	Exceeded Half The Standard
Terbufos	2025-09-15	<0.5	µg/L	No	No
Tetrachloroethylene	2025-09-16	<0.5	µg/L	No	No
2,3,4,6-Tetrachlorophenol	2025-09-15	<0.2	µg/L	No	No
Triallate	2025-09-15	<10.0	µg/L	No	No
Trichloroethylene	2025-09-16	<0.5	µg/L	No	No
2,4,6-Trichlorophenol	2025-09-15	<0.2	µg/L	No	No
Trifluralin	2025-09-15	<0.5	µg/L	No	No
Vinyl Chloride	2025-09-16	<0.2	µg/L	No	No

Summary of other parameters performed under Schedule 13

Sample Type	Parameter	Total Analysis	Range Results	Units	Exceeded the Standard
Treated	Nitrite	4	0.05 – 0.05	mg/L	None
Treated	Nitrate	4	0.23 – 0.39	mg/L	None
Distribution	Haloacetic acids *(running annual average)*	15	38.6	µg /L	No
Distribution	THM *(running annual average)*	15	56.8	µg /L	No
Treated	Sodium*	1	15.8	mg/L	No

Sodium: December 2025 results. Regulation requires at least one water sample is taken every 60 months and tested for sodium. Next sampling will be performed before December 2030.*

Summary of lead testing performed under Schedule 15.1

Sample Type	Total Analysis	Range Results	Units	Exceeded the Standard
Plumbing	12	0.00002 - 0.00047	mg/L	None
Distribution	8	0.00021 - 0.00118	mg/L	None

Non-Compliance Findings

The annual Ministry of the Environment, Conservation and Parks (MECP) inspection for this reporting period took place on December 3, 2025. The MECP Annual Inspection report is expected by the end of February.

Adverse Test Results and other observations

During this review period, zero (0) drinking water tests exceeded provincial water quality standards and, zero (0) observation or situation indicating that water directed to users was not disinfected in accordance with the Ministry's Procedure for Disinfection of Drinking Water in Ontario occurred.

Availability of Report

This report, along with the Hawkesbury Drinking Water Annual Summary Report prepared in accordance with Schedule 22 of O.Reg.170/03 is available at no charge at the following places:

1. ***Environmental Service***
   Corporation of the Town of Hawkesbury
   815 Main East
   Hawkesbury (Ontario) K6A 1B5
   (613) 678-9269

2. ***Hawkesbury Public Library***
   550 Higginson Street
   Hawkesbury, Ontario
   K6A 1H1

3. ***Town's website*** **www.hawkesbury.ca**

Additionally, this report is provided to the Township of Champlain and the Ministry of the Environment, Conservation and Parks.

If the format of this document is inadequate, the Clerk's office can be contacted at 613-632-0106 and the municipality can provide, to the best of its abilities, the required assistance.