Drinking-Water Systems Regulation O. Reg. 170/03

Optional Annual Report Template

Drinking-Water System(DWS) Number:	210000684
Drinking-Water System Name:	Bradford / Bondhead Drinking Water System
Drinking-Water System Owner:	The Corporation of the Town of Bradford West Gwillimbury
Drinking-Water System Category:	Water Distribution and Supply Subsystem Class 3, Large Municipal Residential System
Period being reported:	January 1 to December 31, 2025
Does your DWS Serve more than 10,000 people?	Yes
Is your annual report available to the public at no charge on a web site?	Yes www.townofbwg.com
Location where report will be available for inspection:	Town of Bradford West Gwillimbury Water Division 3541 Line 11 Bradford, ON L3Z 2A8
Number of Designated facilities served:	0
Number of interested authorities you report to:	0

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?

Yes [ ] No [ ] NA [x]

Indicate how you notified system users that your annual report is available, and is free of charge.

[X] Public access/notice via the web
[ ] Public access/notice via Government Office
[X] Public access/notice via a newspaper
[ ] Public access/notice via Public Request
[ ] Public access/notice via a Public Library
[ ] Public access/notice via other method

Availability of Schedule 22 Report:

In accordance with Schedule 22 of Ontario Regulation 170/03, the annual summary report for the Bradford/ Bond Head Drinking Water System is available for inspection. A physical copy of the report is available at the Infrastructure Services Department located at 3541 Line 11, Bradford, ON, L3Z 2A8. For further inquiries please contact the Infrastructure Services Department during regular business hours (Monday to Friday, 8:30 AM to 4:30 PM).

Describe your Drinking-Water System

The Bradford/Bond Head drinking water system is categorized as a large municipal residential system. The system is classified as a Water Distribution and Supply Subsystem Class 3 and is operated under Drinking Water Works Permit No. 116-201 issued June 13, 2021, Municipal Drinking Water License No. 116-101 issued June 13, 2021 and a Permit to Take Water No. 0244-D2VPU6 issued April 12, 2024. Additionally, the Drinking Water System conforms to and is accredited by the Drinking Water Quality Management Standard (DWQMS).

The Town's drinking water supply is provided by two (2) municipal wells, Church Well No.1 and Church Well No.2, and treated surface water provided by the Innisfil Lake Simcoe Water Filtration Plant (ILS WFP) located in the Town of Innisfil.

The distribution system is approximately 187 Kilometers (km) in length. There are two (2) Standpipes positioned within the footprint of the Town. Each Standpipe has a booster pumping station and re-chlorination system. In addition to the standpipes, there is one (1) monitoring station located at the furthest point within the distribution system, one (1) Water Tower also equipped with a re-chlorination system and one (1) grade level reservoir equipped with a re-chlorination system that receives treated surface water from the ILS WFP. The Town is split into two (2) zones which are supplied by either well or surface water. Zone No.1 is supplied by groundwater and Zone No.2 is supplied by surface water.

The Town's Supervisor Control and Data Acquisition (SCADA) system allows for remote access to the water facilities located across the Town. This provides operations personnel with the opportunity to monitor, control, historically trend, report, log totals and archive all available field parameters within the system.

The 2025 annual water consumption totaled 4,085,578 m^3. The groundwater supply provided 1,215,698 m^3, 30% of the total water usage; and the surface water supply accounted for the remaining 70%, totaling 2,869,880 m^3. There were zero (0) reported water interference complaints registered with the Town during the reporting period.

The reported year-end serviced population for the drinking water system totaled approximately 39,726 which includes both residential, industrial, commercial, and institutional consumers.

List all water treatment chemicals used over this reporting period

Station:	Sodium Hypochlorite Usage:
Church Well No. 1	15,351.77 L
Church Well No. 2	48,594.50 L
Standpipe No. 1	1,413.51 L
Standpipe No. 2	2,240.54 kg
Bond Head Water Tower	870.54 L

Station:	Chlorine Gas Usage:
John Fennell Reservoir	149.3 kg

Were any significant expenses incurred to?

[X] Install required equipment
[X] Repair required equipment
[X] Replace required equipment

Please provide a brief description and a breakdown of monetary expenses incurred.

Cathodic Protection	$107,350
Drury/Mary Watermain Replacement	$609,093
Fred Cooke Lining	$777,760
Meter Communication – Bond Head (Base Station)	$62,252
Church Well No.2 Well Pump Maintenance and Inspection	$50,861
Installation of New Church Well Pump Motor	$25,413
Actemium SCADA Maintenance Contract	$22,950
Total:	$1,655,679

Provide details on the notices submitted in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 and reported to Spills Action Centre

Incident Date	AWQI No.	Location	Adverse Indicator	Corrective Action	Corrective Action Date
May 6, 2025	168117	Church Well No. 1 & No. 2	Sodium sample results exceeding 20mg/L Church Well No.1: 44mg/L Church Well No.2: 63mg/L	Resampled May 7th Notified SAC, MOH and MECP.	May 7th, 2025

Microbiological testing done under Schedule 10, 11 or 12 of Regulation 170/03, during this reporting period.

Water Type	Number of Samples	Range of E.Coli or Fecal Results (min #)-(max #)	Range of Total Coliform Results (min #)-(max #) as cfu/100 ml	Number of HPC Samples (Background) as cfu/ml	Range of HPC Results (Background) (min #)-(max #)
Raw	94	0 to 0	0 to 0	Not applicable.	Not applicable.
Treated	94	0 to 0	0 to 0	94	0 to 10

Water Type	Number of Samples	Range of E.Coli or Fecal Results (min #)-(max #)	Range of Total Coliform Results (min #)-(max #) as cfu/100 ml	Number of HPC Samples (Background) as cfu/ml	Range of HPC Results (Background) (min #)-(max #)
Distribution	669	0 to 0	0 to 0	315	0 to 60

Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03 during the period covered by this Annual Report.

	Number of Grab Samples	Range of Results (min #)-(max #)
Turbidity (NTU) Church Well 1 and Church Well 2	23	0.19-0.86
Chlorine residual in the Distribution System (mg/L)	8760	0.05 – 4.00
Fluoride (If the DWS provides fluoridation)	Not Applicable	Not Applicable

Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order or other legal instrument.

Parameter	Sample Date (dd-mm-yyyy)	Result Church Well No. 1	Result Church Well No 2	MAC	Unit of Measure	Exceedance
ND-non detectable **MAC-maximum allowable concentration**						
Sodium	May 7, 2025	43	65	20	mg/L	Yes*
Nitrate	Nov 12, 2025	ND	ND	10	mg/L	No
Nitrite	Nov 12, 2025	ND	ND	1	mg/L	No

*Sodium results that exceed the standard are reportable every sixty (60) months. Sodium was reported in 2025 for this reporting period.

Regulation 170/03 Schedule 15.1-5 reduced lead sampling program. Lead sampling to be completed every 36 months over two consecutive semi-annual periods. The system is exempt from lead sampling in plumbing. Below are the most recent results.

Parameter		Sample Date (dd-mm-yyyy)	Location	Result	MAC	Unit of Measure	Ex
Lead		2009	Commercial (12 samples)	<0.0006-0.0019	0.010	mg/L	No
Lead		2009	Residential (64 samples)	<0.0005-0.007	0.010	mg/L	No
Lead		2024	Distribution (8 samples)	0-0.001	0.01	mg/L	No

Summary of inorganic parameters tested during this reporting period or the most recent sample results

Parameter	Sample Date (dd-mm-yyyy)	Result Church Well No. 1	Result Church Well No 2	MAC	Unit of Measure	Exceedance
ND-non detectable MAC-maximum allowable concentration						
Antimony	11-09-2024	ND	ND	0.006	mg/L	No
Arsenic	11-09-2024	ND	ND	0.01	mg/L	No
Barium	11-09-2024	0.098	0.12	1.00	mg/L	No
Boron	11-09-2024	0.15	0.16	5.00	mg/L	No
Cadmium	11-09-2024	ND	ND	0.005	mg/L	No
Chromium	11-09-2024	ND	ND	0.05	mg/L	No
Mercury	11-09-2024	ND	ND	0.001	mg/L	No
Selenium	11-09-2024	ND	ND	0.05	mg/L	No
Uranium	11-09-2024	ND	ND	0.02	mg/L	No
Fluoride	01-06-2023	0.28	0.31	1.5	mg/L	No

Summary of organic parameters sampled during this reporting period or the most recent sample results.

Parameter	Sample Date (dd-mm-yyyy)	Result Church Well No. 1	Result Church Well No 2	MAC	Unit of Measure	Exceedance
ND-non detectable MAC-maximum allowable concentration						
Alachlor	11-09-2024	ND	ND	5	ug/L	No
Atrazine	11-09-2024	ND	ND	-	ug/L	No
Azinphos-methyl	11-09-2024	ND	ND	20	ug/L	No
Benzene	11-09-2024	ND	ND	1	ug/L	No
Benzo(a)pyrene	11-09-2024	ND	ND	0.01	ug/L	No
Bromoxynil	11-09-2024	ND	ND	5	ug/L	No

Drinking-Water Systems Regulation O. Reg. 170/03

Parameter	Sample Date (dd-mm-yyyy)	Result Church Well No. 1	Result Church Well No 2	MAC	Unit of Measure	Exceedance
Carbaryl	11-09-2024	ND	ND	90	ug/L	No
Carbofuran	11-09-2024	ND	ND	90	ug/L	No
Carbon Tetrachloride	11-09-2024	ND	ND	2	ug/L	No
Chlorpyrifos	11-09-2024	ND	ND	90	ug/L	No
Diazinon	11-09-2024	ND	ND	20	ug/L	No
Dicamba	11-09-2024	ND	ND	120	ug/L	No
1,2-Dichlorobenzene	11-09-2024	ND	ND	200	ug/L	No
1,4-Dichlorobenzene	11-09-2024	ND	ND	5	ug/L	No
1,2-Dichloroethane	11-09-2024	ND	ND	5	ug/L	No
1,1-Dichloroethylene	11-09-2024	ND	ND	14	ug/L	No
Dichloromethane	11-09-2024	ND	ND	50	ug/L	No
2-4 Dichlorophenol	11-09-2024	ND	ND	900	ug/L	No
2,4-Dichlorophenoxy acetic acid (2-4-D)	11-09-2024	ND	ND	100	ug/L	No
Diclofop-methyl	11-09-2024	ND	ND	9	ug/L	No
Dimethoate	11-09-2024	ND	ND	20	ug/L	No
Diquat	11-09-2024	ND	ND	70	ug/L	No
Diuron	11-09-2024	ND	ND	150	ug/L	No
Glyphosate	11-09-2024	ND	ND	280	ug/L	No
2-Methyl-4-Chlorophenoxyacetic acid	11-09-2024	ND	ND	100	ug/L	No
Malathion	11-09-2024	ND	ND	190	ug/L	No
Metolachlor	11-09-2024	ND	ND	50	ug/L	No
Metribuzin	11-09-2024	ND	ND	80	ug/L	No
Monochlorobenzene	11-09-2024	ND	ND	80	ug/L	No
Paraquat	11-09-2024	ND	ND	10	ug/L	No
Pentachlorophenol	11-09-2024	ND	ND	60	ug/L	No
Phorate	11-09-2024	ND	ND	2	ug/L	No
Picloram	11-09-2024	ND	ND	190	ug/L	No
Polychlorinated Biphenyls(PCB)	11-09-2024	ND	ND	3	ug/L	No
Prometryne	11-09-2024	ND	ND	1	ug/L	No
Simazine	11-09-2024	ND	ND	10	ug/L	No
Terbufos	11-09-2024	ND	ND	1	ug/L	No
Tetrachloroethylene	11-09-2024	ND	ND	10	ug/L	No
2,3,4,6-Tetrachlorophenol	11-09-2024	ND	ND	100	ug/L	No
Triallate	11-09-2024	ND	ND	230	ug/L	No
Trichloroethylene	11-09-2024	ND	ND	5	ug/L	No
2,4,6-Trichlorophenol	11-09-2024	ND	ND	5	ug/L	No
Trifluralin	11-09-2024	ND	ND	45	ug/L	No

Parameter	Sample Date (dd-mm-yyyy)	Result Church Well No. 1	Result Church Well No 2	MAC	Unit of Measure	Exceedance
Vinyl Chloride	11-09-2024	ND	ND	1	ug/L	No

As per O. Reg. 170/03, alkalinity and pH levels are monitored biannually during the established "winter" period from December 15 to April 15 and the "summer" period from June 15 to October 15.

Parameter	Sample Date (dd-mm-yyyy)	Distribution Result	MAC	Unit of Measure	Exceedance
HAA*	12-11-2025	37.5	80	ug/L	No
THM*	12-11-2025	67.80	100	ug/L	No
Alkalinity	19-02-2025	110 – 150	AO 30-500	mg/L	No
Alkalinity	13-08-2025	110 - 140	AO 30-500	mg/L	No
pH	19-02-2025	7.43 - 7.64	OG 6.5-8.5	N/A	No
pH	13-08-2025	7.86 -8.23	OG 6.5-8.5	N/A	No

*The results are compiled as a running annual average.

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

Parameter	Sample Date (dd-mm-yyyy)	Distribution Result	MAC	Unit of Measure	Exceedance
THM*	12-11-2025	67.80	100	ug/L	No

***** The results are compiled as a running annual average.