

Water Services' Annual Report

January 1 to December 31, 2024

Guelph Drinking Water System

Corporation of the City of Guelph

Gazer Mooney Subdivision Distribution System

Township of Guelph/Eramosa



Water Services
Environmental Services Department

Last Revision:0

This document is a Province of Ontario form.
To request the information on this form in an accessible format, please contact (add the waterservices@guelph.ca or by calling 519-837-5627; TTY: 519-837-5688 or text 226-821-2132.as the information is our info, not belonging to the province.)

Guelph Distribution System Annual Report

Drinking Water System Number: 220000095

Drinking Water System Name: Guelph Drinking Water System

Drinking Water System Owner: The Corporation of the City of Guelph

Drinking Water System Category: Large Municipal Residential

Period being reported: January 1, 2024, through December 31, 2024

Complete if your Category is Large Municipal Residential or Small Municipal Residential

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

Yes.

Is your annual report available to the public at no charge on a web site on the Internet?

Yes.

Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.

An electronic copy of the Summary Report will be provided to MECP upon request.

Complete for all other Categories

Number of Designated Facilities served:

Not applicable.

Did you provide a copy of your annual report to all Designated Facilities you serve?

Not applicable.

Number of Interested Authorities you report to:

Not applicable.

Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility?

Not applicable.

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

Drinking Water System Name: Gazer Mooney Subdivision Distribution System (Guelph Eramosa Township).

Drinking Water System Number: 260057967

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 drinking water?

Yes.

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

Public access/notice via the web: Yes.
Public access/notice via Government Office: Yes.
Public access/notice via a newspaper: No.
Public access/notice via Public Request: Yes.
Public access/notice via a Public Library: No.
Public access/notice via other: No.

City of Guelph Drinking Water System Description:

All water provided to the Guelph Drinking Water System was treated via Water Services' 12 active water treatment Facilities for: primary disinfection using chlorine solution (10 sites) or ultraviolet irradiation (2 sites); secondary disinfection using chlorine solution for a free chlorine residual (12 sites); sequestration using sodium silicate for dissolved iron (2 sites); and manganese removal using green-sand filtration (1 site).

The City of Guelph has 15 active pumping stations; three (3) elevated storage tanks; four (4) major underground storage reservoirs; approximately 564 Kilometres of underground watermains, and a population of approximately 148,200.

List all water treatment chemicals used over this reporting period:

Sodium Hypochlorite (chlorine solution for disinfection).
Sodium Silicate (for iron sequestration).

Were any significant expenses incurred to?

Install required equipment: No.
Repair required equipment: No.
Replace required equipment: No.

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

Capital Projects: The following amounts relate to projects completed in 2024. These numbers do not include the normal operating and maintenance costs.

Project Name: Helmar Station
Description: Decommissioning of equipment at Helmar Station
Monetary Expense: \$33K

Project Name: FM Woods Valve Replacement
Description: FM Woods Valve Replacement in Reservoirs
Monetary Expense: \$530K

Project Name: Burke Station Pipe Replacement

Description: Replacement of piping at Burke Station due to corrosion issues
Monetary Expense: \$300K

Project Name: Watermain Replacement
Description: 2,747.07 meter of watermain replaced
Monetary Expense: \$2.588 M (approximately)

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:

In 2024, there were 4 (four) incidents of Adverse Water Quality Incidents (AWQIs).

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
2024-03-07	Sodium	Dean -160 University-140 Downey -61 Burkes -64	mg/L	Re-sampled and reported results to MECP and Wellington Dufferin and Guelph Public Health (WDGPH) unit as required under O.reg 170/03	2024-03-13
2024-03-07	Sodium	Paisley -78 Membro -180 Water St -140	mg/L	Re-sampled and reported results to MECP and Wellington Dufferin and Guelph Public Health (WDGPH) unit as required under O.reg 170/03	2024-03-13
2024-06-18	Total Coliform (TC)	5	CFU	Re-sampled and reported results to MECP and Wellington Dufferin and Guelph	2024-06-18

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
				Public Health (WDGPH) unit as required under O.reg 170/03	
2024-09-26	Chlorine residual (as a precaution)	Hydrant H46-077 1.31	mg/L	A contractor damaged and replaced a water service on Keating St without a MECP certified drinking water operator on site. City became aware on October 1, 2024. Reported to MECP and WDGPH as required under O.reg 170/03. The city had the contractor remove the water service and had it re-installed to city standards in presence of city's MECP's certified drinking water operator	2024-10-03
		Hydrant H46-077 1.39	mg/L		

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

	Number of Samples	Range of E. Coli Results (min #)-(max #)	Range of Total Coliform Results (min #)-(max #)	Number of HPC Samples	Range of HPC Results (min #)-(max #)
Raw	891	0-2	0-120	0	Not applicable.
Treated	513	0-0	0-0	513	0-410
Distribution	1655	0 - 0	0 - 5	779	0-560

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 #)	Unit of Measure
Turbidity	900	0.05-1.84	NTU
Chlorine	832	0.30-1.69	mg/L
Fluoride (If the DWS provides fluoridation)	Not applicable.	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:

The Micro Particulate Analysis (MPA) below was an ongoing assessment/confirmation of the water quality at the Arkell Collectors shallow groundwater infiltration system. The data was used to confirm adequate disinfection of this source water at F.M. Woods. In April 2024 the Arkell Collector source water was fully disinfected and sampled/analyzed as per the Municipal Drinking Water Licence (MDWL 017-101 – 2021/07/06). The MPA sampling requirements were removed from the Municipal Drinking Water Licence (MDWL 017-101 Issue Number:18 – 2024/06/27)

Date of legal instrument issued	Parameter	Date Sampled	Result	Unit of Measure
MDWL 017-101 2022/07/15	cryptosporidium	24/04/11	0	Relative Risk Factor is 0 (low risk).
	giardia	24/04/11	0	
	diatoms	24/04/11	0	
	other algae (pigment bearing)	24/04/11	0	
	rotifers, eggs	24/04/11	0	

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

The required three year sampling for ground water sources was done in 2022 and are due for re-sample in 2025, is included in the results in the table below. The table also includes the annual 2024 sampling for surface water sources.

NOTE: A result of zero indicates that the result obtained was below the method detection/reporting limit.

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	2022-2024	0 - 0	mg/L	No
Arsenic	2022-2024	0 - 0	mg/L	No
Barium	2022-2024	0.034 - 0.045	mg/L	No
Boron	2022-2024	0.013 - 0.014	mg/L	No
Cadmium	2022-2024	0 - 0.00011	mg/L	No
Chromium	2022-2024	0 - 0	mg/L	No
Mercury	2022-2024	0 - 0	mg/L	No
Lead	2022-2024	0 - 0	mg/L	No
Selenium	2022-2024	0 - 0	mg/L	No
Sodium	2024 (next sample in 2029)	28 - 180	mg/L	Yes
Uranium	2022-2024	0.00037 - 0.00057	mg/L	No
Fluoride	2024	0 - 0.77	mg/L	No
Nitrite	2024	0 - 0.015	mg/L	No
Nitrate	2024	0 - 2.22	mg/L	No

Summary of lead testing under MDWL 017-101 – Lead Regulatory Relief during this reporting period.

The table below includes all samples/analysis required by the MDWL 017-101, Lead Reduction Plan.

Number of Locations	Location Type	Number of Samples	Range of Lead Results (min#) – (max #)	Unit of Measure	Number of Exceedances
11	Private Plumbing	52	0 - 0.17	mg/L	7
10	Distribution	10	0 - 0	mg/L	0

Summary of Organic parameters sampled during this reporting period or the most recent sample results:

Under O.Reg. 170/03; Schedule 13-4, treated groundwater sources are assessed on a 3-year sampling schedule and last sampled in 2022; treated GUDI sources are on an annual schedule and last sampled in 2024. Sampling/analysis occurred as required with value results covering both source characterizations, below.

NOTE: A result of zero indicates that the result obtained was below the method detection/reporting limit.

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	2024	0 - 0	mg/L	No
Atrazine + N-dealkylated metabolites	2024	0 - 0	mg/L	No
Azinphos-methyl	2024	0 - 0	mg/L	No
Benzene	2024	0 - 0	mg/L	No
Benzo(a)pyrene	2024	0 - 0	mg/L	No
Bromoxynil	2024	0 - 0	mg/L	No
Carbaryl	2024	0 - 0	mg/L	No
Carbofuran	2024	0 - 0	mg/L	No
Carbon Tetrachloride	2024	0 - 0	mg/L	No
Chlorobenzene	2024	0 - 0	mg/L	No
Chlorpyrifos	2024	0 - 0	mg/L	No
Diazinon	2024	0 - 0	mg/L	No
Dicamba	2024	0 - 0	mg/L	No
1,2-Dichlorobenzene	2024	0 - 0	mg/L	No
1,4-Dichlorobenzene	2024	0 - 0	mg/L	No
1,2-Dichloroethane	2024	0 - 0	mg/L	No
1,1-Dichloroethylene (vinylidene chloride)	2024	0 - 0	mg/L	No
Dichloromethane	2024	0 - 0	mg/L	No
2,4 Dichlorophenol	2024	0 - 0	mg/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	2024	0 - 0	mg/L	No
Diclofop-methyl	2024	0 - 0	mg/L	No
Dimethoate	2024	0 - 0	mg/L	No
Diquat	2024	0 - 0	mg/L	No
Diuron	2024	0 - 0	mg/L	No
Glyphosate	2024	0 - 0	mg/L	No
HAAs (<i>Note: shows latest running annual average</i>)	2024	0.021	mg/L	No
Malathion	2024	0 - 0	mg/L	No
2-methyl-4-chlorophenoxyacetic acid / MCPA	2024	0 - 0	mg/L	No

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Metolachlor	2024	0 - 0	mg/L	No
Metribuzin	2024	0 - 0	mg/L	No
Paraquat	2024	0 - 0	mg/L	No
Pentachlorophenol	2024	0 - 0	mg/L	No
Phorate	2024	0 - 0	mg/L	No
Picloram	2024	0 - 0	mg/L	No
Polychlorinated Biphenyls(PCB)	2024	0 - 0	mg/L	No
Prometryne	2024	0 - 0	mg/L	No
Simazine	2024	0 - 0	mg/L	No
Terbufos	2024	0 - 0	mg/L	No
Tetrachloroethylene (perchloroethylene)	2024	0 - 0	mg/L	No
2,3,4,6-Tetrachlorophenol	2024	0 - 0	mg/L	No
THMs (Note: shows latest running annual average)	2024	0.028	mg/L	No
Triallate	2024	0 - 0	mg/L	No
Trichloroethylene	2024	0 - 0.00184	mg/L	No
2,4,6-Trichlorophenol	2024	0 - 0	mg/L	No
Trifluralin	2024	0 - 0	mg/L	No
Vinyl Chloride	2024	0 - 0	mg/L	No

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

There were no instances of organic or inorganic parameter sample results exceeding half the standard from January 2024 through December 2024.

The Gazer Mooney Subdivision Distribution System ANNUAL REPORT

Drinking Water System Number: 260057967

Drinking Water System Name: Gazer Mooney Subdivision Distribution System

Drinking Water System Owner: The Corporation of the Township of
Guelph/Eramosa

Drinking Water System Category: Small Municipal Residential

Period being reported: January 1, 2024, through December 31, 2024

Complete if your Category is Large Municipal Residential or Small Municipal Residential

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 web site on
the Internet?**

Yes.

**Location where Summary Report required under O. Reg. 170/03 Schedule
22 will be available for inspection.**

An electronic copy of the Summary Report will be provided to MECP upon request.

Complete for all other Categories

Number of Designated Facilities served:

Not applicable.

**Did you provide a copy of your annual report to all Designated Facilities
you serve?**

Not applicable.

Number of Interested Authorities you report to:

Not applicable.

**Did you provide a copy of your annual report to all Interested Authorities
you report to for each Designated Facility?**

Not applicable.

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

Drinking Water System Name: Not applicable.

Drinking Water System Number: Not applicable.

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 drinking water?

Yes.

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

Public access/notice via the web: Yes.

Public access/notice via Government Office: Yes.

Public access/notice via a newspaper: No.

Public access/notice via Public Request: Yes.

Public access/notice via a Public Library: No.

Public access/notice via other: No.

Gazer-Mooney Subdivision Drinking Water System

The Gazer Mooney Subdivision has approximately 72 fully metered water service connections; 2 kilometres of underground watermains, and an approximate population of 209 people.

All water provided to the Gazer Mooney Subdivision Distribution System is supplied by the Guelph Drinking Water System.

List all water treatment chemicals used over this reporting period:

Treated drinking water was supplied in its entirety from the Guelph Drinking Water System. Please refer to the Guelph Drinking Water System Annual Report for a list of water treatment chemicals used in the drinking water treatment process.

Were any significant expenses incurred to?

Install required equipment: No.

Repair required equipment: No.

Replace required equipment: No.

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

No significant capital expenses were incurred in 2024 to maintain the Gazer Mooney Subdivision Distribution System.

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:

In 2024, there was one incident of Adverse Water Quality Incident (AWQI) in the Gazer Mooney Subdivision Distribution System, this AWQI was for Sodium results of

33 mg/L and reported to Spills Action Centre on March 12,2024. The resolution was filed March 19,2024.

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
March 8,2024	Sodium	33	mg/l	Re-sampled as required under O.Reg 170/03	March 13,2024

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

	Number of Samples	Range of E. Coli Results (min #)-(max #)	Range of Total Coliform Results (min #)-(max #)	Number of HPC Samples	Range of HPC Results (min #)-(max #)
Raw	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.
Treated	Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.
Distribution	53	0 - 0	0 - 0	53	0 - 5

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 #)	Unit of Measure
Turbidity	Not applicable.	Not applicable.	Not applicable.
Chlorine	96	0.33 – 1.57	mg/L
Fluoride (If the DWS provides fluoridation)	Not applicable.	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:

Date of legal instrument issued	Parameter	Date Sampled	Result	Unit of Measure
Not applicable.	Not applicable.	Not applicable.	Not applicable.	Not applicable.

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

Please refer to the Guelph Drinking Water System Annual Report for treated drinking water summary inorganic water quality results.

Summary of lead testing under “Approved Relief” during this reporting period:

NOTE: A result of zero indicates that the result obtained was below the method detection/reporting limit.

Location Type	Number of Samples	Range of Lead Results (min#) – (max #)	Unit of Measure	Number of Exceedances
Distribution	2	0 - 0	mg/L	0

Summary of Organic parameters sampled during this reporting period or the most recent sample results:

NOTE: A result of zero indicates that the result obtained was below the method detection/reporting limit.

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
HAA's - Haloacetic acids (Note: show latest running annual average)	Jan - Dec 2024	0.0073	mg/L	0
THM's - trihalomethanes (Note: show latest running annual average)	Jan - Dec 2024	0.0216	mg/L	0

The above table are sample results from the Gazer Mooney Subdivision Distribution System. For organic water quality results from the Guelph Drinking Water System, please refer to the Guelph Drinking Water System Annual Report; in 2024, there were no exceedances related to organic parameters in the Guelph Drinking Water System.

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

There were no instances of organic parameter sample results exceeding half the standard in 2024 in the Gazer Mooney Subdivision System or the Guelph Drinking Water System.