



2023

Water Quality Report

For

The City of Stratford

Water Distribution and Supply

Infrastructure and Development Services

February 22, 2024



Infrastructure and Development
Services Department
82 Erie Street, 3rd Floor
Stratford ON N5A 2M4
(519) 271-0250 Ext. 222
www.stratford.ca

February 22, 2024

Dear Water Consumer,

The Water Division is pleased to provide the 2023 Annual Water Quality Report for the City of Stratford Distribution and Supply water system.

The report, as required by Regulation 170/03 of the Safe Drinking Water Act, contains information related to water quality in the City of Stratford.

The report must be made available annually by February 28 and can be found on the City of Stratford website at:

<https://www.stratford.ca/en/live-here/waterannualreports.aspx>

If you have any questions or would like copies of the report, please call 519-271-0250 ext. 5222 or the report can be viewed at the Infrastructure Services Department, City Annex, 82 Erie Street, 3rd Floor, Stratford.

Yours truly,

A handwritten signature in blue ink, appearing to read 'J. Bowes', followed by a long horizontal flourish.

Johnny Bowes
Manager of Environmental Services

Annual Report

Drinking-Water System Number: 220000530
Drinking-Water System Name: Stratford Drinking Water System
Drinking-Water System Owner: Corporation of the City of Stratford
Drinking-Water System Category: Large Municipal Residential
Period Being Reported: January 1 to December 31, 2023

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 website?

Yes

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

On-line at: <https://www.stratford.ca/en/live-here/waterannualreports.aspx>, or contact the City of Stratford Infrastructure Services, Water Division at 519-271-0250, extension 5222.

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

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 Website: 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 method: Yes, Social Media

Describe Your Drinking-Water System:

- **Chestnut Street Well and Pumphouse:** Raw water is pumped with one submersible well pump directly into a 131.5m³ raw water reservoir (chlorine contact chamber). As flow enters the raw water reservoir (chlorine contact chamber) is it injected with chlorine gas for primary disinfection, where it then flows into to a 59m³ highlift pump well to achieve sufficient chlorine contact time. Treated water is then distributed to the distribution system by one vertical turbine highlift pump. Free Chlorine Analyzer continuously monitors chlorine residuals prior to the distribution system. The facility is monitored through the SCADA system. During regular working hours the facility monitored by operational staff and remotely through an emergency after-hours alarming system. This site has no emergency standby power on-site but is equipped with a main power electrical transfer switch and connection for use of a 15kW portable generator available for standby power at 161 Wellington Street in emergency conditions.
- **Mornington Street Well and Pumphouse:** Raw water is pumped with one submersible well pump directly into a 50m³ raw water reservoir. As flow enters the raw water reservoir is it injected with chlorine gas for primary disinfection, where it then flows into to a 118.3m³ clear well to achieve sufficient chlorine contact time. Treated water is then distributed to the distribution system by one vertical turbine highlift pump. Free Chlorine Analyzer continuously monitors chlorine residuals prior to the distribution system. The facility is monitored through the SCADA system. During regular working hours the facility monitored by operational staff and remotely through an emergency after-hours alarming system. This site has no emergency standby power on-site but is equipped with a main power electrical transfer switch and connection for use of a 15kW portable generator available for standby power at 161 Wellington Street in emergency conditions.
- **Lorne Avenue Well and Pumphouse:** Raw water is pumped with one submersible well pump directly into a 30m³ concrete pressure chamber which also acts as the chlorine contact chamber. Prior to flow entering the concrete pressure chamber is it injected with chlorine gas for primary disinfection. To achieve sufficient chlorine contact time the concrete pressure chamber is equipped with two internal and external perforated baffles. Treated water is then distributed to the distribution system through a gate valve and a connection to the existing watermain. Free Chlorine Analyzer continuously monitors chlorine residuals prior to the distribution system. The facility is monitored through the SCADA system. During regular working hours the facility monitored by operational staff and remotely through an emergency after-hours alarming system. This site has no emergency standby power on-site but is equipped with a main power electrical transfer switch and connection for use of a 15kW

portable generator available for standby power at 161 Wellington Street in emergency conditions.

- **Dunn Road Well and Pumphouse:** Raw water is pumped with one submersible well pump directly into a 89.5m³ concrete pressure chamber which also acts as the chlorine contact chamber. Prior to flow entering the concrete pressure chamber is it injected with chlorine gas for primary disinfection. To achieve sufficient chlorine contact time the concrete pressure chamber is equipped with three internal perforated baffles. Treated water is then distributed to the distribution system through a gate valve and a connection to the existing watermain. Free Chlorine Analyzer continuously monitors chlorine residuals prior to the distribution system. The facility is monitored through the SCADA system. During regular working hours the facility monitored by operational staff and remotely through an emergency after-hours alarming system. This site has no emergency standby power on-site but is equipped with a main power electrical transfer switch and connection for use of a 15kW portable generator available for standby power at 161 Wellington Street in emergency conditions.
- **O'Loane Avenue Well and Pumphouse:** Raw water is pumped with one submersible well pump directly into a 54.2m³ concrete pressure chamber which also acts as the chlorine contact chamber. Prior to flow entering the concrete pressure chamber is it injected with chlorine gas for primary disinfection. The concrete pressure chamber provides sufficient chlorine contact time. Treated water is then distributed to the distribution system through a gate valve and a connection to the existing watermain. Free Chlorine Analyzer continuously monitors chlorine residuals prior to the distribution system. The facility is monitored through the SCADA system. During regular working hours the facility monitored by operational staff and remotely through an emergency after-hours alarming system.
- **Romeo Street Pumping Station:** Raw water is received from 6 Raw Water Field Wells, each field well is equipped with submersible pumps. Flows are then pumped directly into a 450.2m³ treatment well which then flows a 7,500m³ inground storage reservoir for chlorine contact time. Prior to flow entering the treatment well is it injected with chlorine gas for primary disinfection. For additional chlorine contact time, Flow continues into a 521.8m³ storage well followed by a 289.4m³ pump well, all of which provide sufficient contact time. The well water at Romeo Street Pumping Station has iron levels higher than what is considered aesthetically acceptable. The well house provides chemically assisted iron sequestering; the chemical used is sodium silicate. Sodium silicate is fed prior to the point of entry to the treatment well.

Treated water is then distributed to the distribution system by three vertical turbine highlift pump and one vertical turbine fire pump. Free Chlorine Analyzers continuously monitors chlorine residuals prior to the distribution system. The

facility is monitored through the SCADA system. During regular working hours the facility monitored by operational staff and remotely through an emergency after-hours alarming system. This is standby power provided but a 600 kW diesel generator.

- **The City of Stratford Distribution System** consists of 180km of cast iron, ductile, steel and PVC water main, varying in size from 100mm to 400mm. It includes 1850 main valves, 940 public fire hydrants and 12,650 service connections. There are two water towers located in the distribution system that provide both storage and pressure stability. The Dufferin Water Tower has a capacity of 3,790m³ and is equipped with an analyzer for continuous monitoring of the level of chlorine. The Forman Water Tower has a capacity of 5,680m³.

List all water treatment chemicals used over this reporting period:

Chlorine Gas & Sodium Silicate (Sodium Silicate only used at Romeo Street Pumping Station).

Were any significant expenses incurred to:

- Install required equipment? Yes
- Repair required equipment? Yes
- Replace required equipment? Yes

Please provide a brief description and a breakdown of monetary expenses incurred in 2020:

1. Dufferin and Forman Tower Cleaning and Inspections
 - a. Combination of staff time and Landmark Inc. to complete inspections and cleaning.
 - b. **Total Cost: \$8,200**
2. Chlorine Valve Regulator Replacements
 - a. Replacement of four chlorine gas flow regulators and two remote flowmeters.
 - b. **Total Cost: \$18,400**
3. System Wide Leak Detection Survey
 - a. Completed by Nichol Water Services.
 - b. **Total Cost: \$10,000**
4. Mornington Well PLC Upgrade
 - a. Replacement of existing PLC at the Mornington Treatment Well.
 - b. **Total Cost: \$5,600**
5. Mag Meter Replacements/Installations
 - a. Complete installs at Field Well #6, Lorne Ave. Well and O'Loane Ave. Well.
 - b. **Total Cost: \$20,900**

6. Groundwater Monitoring and Well Rehabilitation Review
 - a. Consulting Services from ARL Groundwater Resources Ltd.
 - b. **Total Cost: \$14,000**
7. Bottle Fill Stations
 - a. Installation of public combo water bottle fill and fountain stations at SERC and The Boathouse.
 - b. **Total Cost \$10,000**
8. 2023 Capital Projects
 - a. Erie St. Watermain Relining
 - i. **Total Cost to Date (Water Related): \$1,400,000**
 - b. Albert St. Phase 1
 - i. **Total Cost to Date (Water Related): \$447,000**
 - c. Ontario St. Watermain Replacement
 - i. **Total Cost to Date (Water Related): \$335,000**

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 (Y/M/D)	Parameter	Result	Units	Corrective Action	Corrective Action Date (Y/M/D)
2023/08/09	Total Coliform	1	cfu/100mL	Resampled Source, up/down stream - Passed	2023/08/11
2023/03/08	Sodium	23.2 to 25.4 (Four locations)	mg/L	Resampled – Reported to MECP as it falls within the 57 month reportable category.	2023/03/14
2023/06/08	Flouride	1.74 to 2.19 (Seven locations)	mg/L	Resampled – Reported to MECP as it falls within the 57 month reportable category.	2023/06/12

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

Water Source	Number of Samples	Range of E.Coli Or Fecal Results (cfu/100mL)	Range of Total Coliform Results (cfu/100mL)	Number of HPC Samples	Range of HPC Results (cfu/100mL)
Raw	539	0	0 - 33	536	<10 - >1040
Treated	297	0	0	293	<10 - 120
Distribution	579	0	0 - 1	579	<10 – 1,300

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

Operational Testing	Number of Grab Samples	Range of Results
Turbidity (Raw)	1432	0.06 – 0.89 NTU
Chlorine	>8760	0.00 – 5.16
Fluoride (If the DWS provides fluoridation)	DWS does not provide fluoridation.	DWS does not provide fluoridation.

Note: For continuous monitors, use 8760 as the number of samples.

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
N/A	N/A	N/A	N/A	N/A

Not applicable; no additional testing or sampling required.

Summary of Inorganic parameters tested during this reporting period or the most recent sample results (Note: ND=Below Method Detection Limit)

**There is no health related limit set for sodium, however, levels of greater than 20 mg/L are reported to the Public Health Department and Ministry of the Environment and Climate Change every five years.*

Chestnut Street Well and Pumphouse

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	14/09/23	ND	ug/L	NO
Arsenic	14/09/23	0.5	ug/L	NO
Barium	14/09/23	190	ug/L	NO
Boron	14/09/23	99	ug/L	NO
Cadmium	14/09/23	0.0003	ug/L	NO
Chromium	14/09/23	0.16	ug/L	NO
Mercury	14/09/23	ND	ug/L	NO
Selenium	14/09/23	0.06	ug/L	NO
Sodium	14/09/23	24.9	mg/L	YES >20mg/L*
Uranium	14/09/23	0.074	ug/L	NO
Fluoride	14/09/23	2.28	mg/L	YES >1.5mg/L
Nitrite	08/03/23	0.011	mg/L	NO
Nitrite	08/06/23	ND	mg/L	NO
Nitrite	14/09/23	ND	mg/L	NO
Nitrite	20/12/22	ND	mg/L	NO
Nitrate	08/03/23	ND	mg/L	NO
Nitrate	08/06/23	ND	mg/L	NO
Nitrate	14/09/23	ND	mg/L	NO
Nitrate	20/12/22	ND	mg/L	NO

Mornington Street Well and Pumphouse

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	14/09/23	ND	ug/L	NO
Arsenic	14/09/23	0.3	ug/L	NO
Barium	14/09/23	112	ug/L	NO
Boron	14/09/23	91	ug/L	NO
Cadmium	14/09/23	0.003	ug/L	NO
Chromium	14/09/23	0.12	ug/L	NO
Mercury	14/09/23	ND	ug/L	NO
Selenium	14/09/23	0.04	ug/L	NO
Sodium	14/09/23	25.1	mg/L	YES >20mg/L*
Uranium	14/09/23	0.077	ug/L	NO
Fluoride	14/09/23	1.98	mg/L	YES >1.5mg/L
Nitrite	08/03/23	0.022	mg/L	NO
Nitrite	08/06/23	ND	mg/L	NO
Nitrite	14/09/23	ND	mg/L	NO
Nitrite	06/12/23	ND	mg/L	NO
Nitrate	08/03/23	ND	mg/L	NO
Nitrate	08/06/23	ND	mg/L	NO
Nitrate	14/09/23	0.006	mg/L	NO
Nitrate	06/12/23	ND	mg/L	NO

Lorne Avenue Well and Pumphouse

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	06/12/23	ND	ug/L	NO
Arsenic	06/12/23	1.1	ug/L	NO
Barium	06/12/23	217	ug/L	NO
Boron	06/12/23	64	ug/L	NO
Cadmium	06/12/23	0.004	ug/L	NO
Chromium	06/12/23	N0.14	ug/L	NO
Mercury	06/12/23	ND	ug/L	NO
Selenium	06/12/23	0.04	ug/L	NO
Sodium	06/12/23	23.4	mg/L	YES >20mg/L*
Uranium	06/12/23	0.091	ug/L	NO
Fluoride	06/12/23	2.34	mg/L	YES >1.5mg/L
Nitrite	08/03/23	ND	mg/L	NO
Nitrite	08/06/23	ND	mg/L	NO
Nitrite	06/12/23	ND	mg/L	NO
Nitrite	06/12/23	ND	mg/L	NO
Nitrate	08/03/23	ND	mg/L	NO
Nitrate	08/06/23	ND	mg/L	NO
Nitrate	06/12/23	ND	mg/L	NO
Nitrate	06/12/23	ND	mg/L	NO

Dunn Road Well and Pumphouse

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	14/09/23	ND	ug/L	NO
Arsenic	14/09/23	1.1	ug/L	NO
Barium	14/09/23	190	ug/L	NO
Boron	14/09/23	84	ug/L	NO
Cadmium	14/09/23	0.003	ug/L	NO
Chromium	14/09/23	0.13	ug/L	NO
Mercury	14/09/23	ND	ug/L	NO
Selenium	14/09/23	0.05	ug/L	NO
Sodium	14/09/23	19.2	mg/L	NO
Uranium	14/09/23	0.080	ug/L	NO
Fluoride	14/09/23	1.76	mg/L	YES >1.5mg/L
Nitrite	08/03/23	0.017	mg/L	NO
Nitrite	08/06/23	ND	mg/L	NO
Nitrite	14/09/23	ND	mg/L	NO
Nitrite	06/12/23	ND	mg/L	NO
Nitrate	08/03/23	ND	mg/L	NO
Nitrate	08/06/23	ND	mg/L	NO
Nitrate	14/09/23	ND	mg/L	NO
Nitrate	06/12/23	ND	mg/L	NO

O'Loane Avenue Well and Pumphouse

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	14/09/23	ND	ug/L	NO
Arsenic	14/09/23	ND	ug/L	NO
Barium	14/09/23	238	ug/L	NO
Boron	14/09/23	60	ug/L	NO
Cadmium	14/09/23	ND	ug/L	NO
Chromium	14/09/23	0.16	ug/L	NO
Mercury	14/09/23	ND	ug/L	NO
Selenium	14/09/23	0.04	ug/L	NO
Sodium	14/09/23	18.3	mg/L	NO
Uranium	14/09/23	0.068	ug/L	NO
Fluoride	14/09/23	2.18	mg/L	YES >1.5mg/L
Nitrite	08/03/23	ND	mg/L	NO
Nitrite	08/06/23	ND	mg/L	NO
Nitrite	14/09/23	ND	mg/L	NO
Nitrite	06/12/23	ND	mg/L	NO
Nitrate	08/03/23	ND	mg/L	NO
Nitrate	08/06/23	ND	mg/L	NO
Nitrate	14/09/23	ND	mg/L	NO
Nitrate	06/12/23	ND	mg/L	NO

Romeo Street Pumping Station

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	14/09/23	ND	ug/L	NO
Arsenic	14/09/23	0.7	ug/L	NO
Barium	14/09/23	107	ug/L	NO
Boron	14/09/23	86	ug/L	NO
Cadmium	14/09/23	ND	ug/L	NO
Chromium	14/09/23	0.15	ug/L	NO
Mercury	14/09/23	ND	ug/L	NO
Selenium	14/09/23	ND	ug/L	NO
Sodium	14/09/23	19.8	mg/L	NO
Uranium	14/09/23	0.104	ug/L	NO
Fluoride	14/09/23	1.53	mg/L	YES >1.5mg/L
Nitrite	08/03/23	0.032	mg/L	NO
Nitrite	08/06/23	ND	mg/L	NO
Nitrite	14/09/23	ND	mg/L	NO
Nitrite	06/12/23	ND	mg/L	NO
Nitrate	08/03/23	0.007	mg/L	NO
Nitrate	08/06/23	ND	mg/L	NO
Nitrate	14/09/23	ND	mg/L	NO
Nitrate	06/12/23	ND	mg/L	NO

Distribution System

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Lead (Forman Tower)	08/03/23	0.01	ug/L	NO
Lead (Dufferin Tower)	08/03/23	ND	ug/L	NO

Summary of lead testing under Schedule 15.1 during this reporting period

Location Type*	Number of Samples	Range of Lead Results (min#) – (max #)	Number of Exceedances
Distribution (Winter)	N/A	N/A	N/A
Distribution (Summer)	N/A	N/A	N/A

**The City of Stratford qualifies for reduced sampling/plumbing exempt. Next lead testing will be conducted in 2024.*

**Summary of Organic parameters sampled during this reporting period
or the most recent sample results** *(Note: ND=Below Method Detection Limit)*

Chestnut Street Well and Pumphouse

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	14/09/23	ND	ug/L	NO
Atrazine + N-dealkylated metabolites	14/09/23	ND	ug/L	NO
Atrazine	14/09/23	ND	ug/L	NO
Desethyl atrazine	14/09/23	ND	ug/L	NO
Azinphos-methyl	14/09/23	ND	ug/L	NO
Benzene	14/09/23	ND	ug/L	NO
Benzo(a)pyrene	14/09/23	ND	ug/L	NO
Bromoxynil	14/09/23	ND	ug/L	NO
Carbaryl	14/09/23	ND	ug/L	NO
Carbofuran	14/09/23	ND	ug/L	NO
Carbon Tetrachloride	14/09/23	ND	ug/L	NO
Chlorpyrifos	14/09/23	ND	ug/L	NO
Diazinon	14/09/23	ND	ug/L	NO
Dicamba	14/09/23	ND	ug/L	NO
1,2-Dichlorobenzene	14/09/23	ND	ug/L	NO
1,4-Dichlorobenzene	14/09/23	ND	ug/L	NO
1,2-Dichloroethane	14/09/23	ND	ug/L	NO
1,1-Dichloroethylene (vinylidene chloride)	14/09/23	ND	ug/L	NO
Dichloromethane	14/09/23	ND	ug/L	NO
2-4 Dichlorophenol	14/09/23	ND	ug/L	NO
2,4-Dichlorophenoxy acetic acid (2,4-D)	14/09/23	ND	ug/L	NO
Diclofop-methyl	14/09/23	ND	ug/L	NO
Dimethoate	14/09/23	ND	ug/L	NO
Diquat	14/09/23	ND	ug/L	NO
Diuron	14/09/23	ND	ug/L	NO
Glyphosate	14/09/23	ND	ug/L	NO
Malathion	14/09/23	ND	ug/L	NO
MCPA	14/09/23	ND	mg/L	NO
Metolachlor	14/09/23	ND	ug/L	NO
Metribuzin	14/09/23	ND	ug/L	NO
Monochlorobenzene	14/09/23	ND	ug/L	NO
Paraquat	14/09/23	ND	ug/L	NO
Pentachlorophenol	14/09/23	ND	ug/L	NO
Phorate	14/09/23	ND	ug/L	NO
Picloram	14/09/23	ND	ug/L	NO

Polychlorinated Biphenyls(PCB)	14/09/23	ND	ug/L	NO
Prometryne	14/09/23	ND	ug/L	NO
Simazine	14/09/23	ND	ug/L	NO
Terbufos	14/09/23	ND	ug/L	NO
Tetrachloroethylene	14/09/23	ND	ug/L	NO
2,3,4,6-Tetrachlorophenol	14/09/23	ND	ug/L	NO
Triallate	14/09/23	ND	ug/L	NO
Trichloroethylene	14/09/23	ND	ug/L	NO
2,4,6-Trichlorophenol	14/09/23	ND	ug/L	NO
Trifluralin	14/09/23	ND	ug/L	NO
Vinyl Chloride	14/09/23	ND	ug/L	NO

Mornington Street Well and Pumphouse

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	14/09/23	ND	ug/L	NO
Atrazine + N-dealkylated metabolites	14/09/23	ND	ug/L	NO
Atrazine	14/09/23	ND	ug/L	NO
Desethyl atrazine	14/09/23	ND	ug/L	NO
Azinphos-methyl	14/09/23	ND	ug/L	NO
Benzene	14/09/23	ND	ug/L	NO
Benzo(a)pyrene	14/09/23	ND	ug/L	NO
Bromoxynil	14/09/23	ND	ug/L	NO
Carbaryl	14/09/23	ND	ug/L	NO
Carbofuran	14/09/23	ND	ug/L	NO
Carbon Tetrachloride	14/09/23	ND	ug/L	NO
Chlorpyrifos	14/09/23	ND	ug/L	NO
Diazinon	14/09/23	ND	ug/L	NO
Dicamba	14/09/23	ND	ug/L	NO
1,2-Dichlorobenzene	14/09/23	ND	ug/L	NO
1,4-Dichlorobenzene	14/09/23	ND	ug/L	NO
1,2-Dichloroethane	14/09/23	ND	ug/L	NO
1,1-Dichloroethylene (vinylidene chloride)	14/09/23	ND	ug/L	NO
Dichloromethane	14/09/23	ND	ug/L	NO
2-4 Dichlorophenol	14/09/23	ND	ug/L	NO
2,4-Dichlorophenoxy acetic acid (2,4-D)	14/09/23	ND	ug/L	NO
Diclofop-methyl	14/09/23	ND	ug/L	NO
Dimethoate	14/09/23	ND	ug/L	NO
Diquat	14/09/23	ND	ug/L	NO

Diuron	14/09/23	ND	ug/L	NO
Glyphosate	14/09/23	ND	ug/L	NO
Malathion	14/09/23	ND	ug/L	NO
MCPA	14/09/23	ND	mg/L	NO
Metolachlor	14/09/23	ND	ug/L	NO
Metribuzin	14/09/23	ND	ug/L	NO
Monochlorobenzene	14/09/23	ND	ug/L	NO
Paraquat	14/09/23	ND	ug/L	NO
Pentachlorophenol	14/09/23	ND	ug/L	NO
Phorate	14/09/23	ND	ug/L	NO
Picloram	14/09/23	ND	ug/L	NO
Polychlorinated Biphenyls(PCB)	14/09/23	ND	ug/L	NO
Prometryne	14/09/23	ND	ug/L	NO
Simazine	14/09/23	ND	ug/L	NO
Terbufos	14/09/23	ND	ug/L	NO
Tetrachloroethylene	14/09/23	ND	ug/L	NO
2,3,4,6-Tetrachlorophenol	14/09/23	ND	ug/L	NO
Triallate	14/09/23	ND	ug/L	NO
Trichloroethylene	14/09/23	ND	ug/L	NO
2,4,6-Trichlorophenol	14/09/23	ND	ug/L	NO
Trifluralin	14/09/23	ND	ug/L	NO
Vinyl Chloride	14/09/23	ND	ug/L	NO

Lorne Avenue Well and Pumphouse

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	06/12/23	ND	ug/L	NO
Atrazine + N-dealkylated metabolites	06/12/23	ND	ug/L	NO
Atrazine	06/12/23	ND	ug/L	NO
Desethyl atrazine	06/12/23	ND	ug/L	NO
Azinphos-methyl	06/12/23	ND	ug/L	NO
Benzene	06/12/23	ND	ug/L	NO
Benzo(a)pyrene	06/12/23	ND	ug/L	NO
Bromoxynil	06/12/23	ND	ug/L	NO
Carbaryl	06/12/23	ND	ug/L	NO
Carbofuran	06/12/23	ND	ug/L	NO
Carbon Tetrachloride	06/12/23	ND	ug/L	NO
Chlorpyrifos	06/12/23	ND	ug/L	NO
Diazinon	06/12/23	ND	ug/L	NO
Dicamba	06/12/23	ND	ug/L	NO
1,2-Dichlorobenzene	06/12/23	ND	ug/L	NO

1,4-Dichlorobenzene	06/12/23	ND	ug/L	NO
1,2-Dichloroethane	06/12/23	ND	ug/L	NO
1,1-Dichloroethylene (vinylidene chloride)	06/12/23	ND	ug/L	NO
Dichloromethane	06/12/23	ND	ug/L	NO
2-4 Dichlorophenol	06/12/23	ND	ug/L	NO
2,4-Dichlorophenoxy acetic acid (2,4-D)	06/12/23	ND	ug/L	NO
Diclofop-methyl	06/12/23	ND	ug/L	NO
Dimethoate	06/12/23	ND	ug/L	NO
Diquat	06/12/23	ND	ug/L	NO
Diuron	06/12/23	ND	ug/L	NO
Glyphosate	06/12/23	ND	ug/L	NO
Malathion	06/12/23	ND	ug/L	NO
MCPA	06/12/23	ND	mg/L	NO
Metolachlor	06/12/23	ND	ug/L	NO
Metribuzin	06/12/23	ND	ug/L	NO
Monochlorobenzene	06/12/23	ND	ug/L	NO
Paraquat	06/12/23	ND	ug/L	NO
Pentachlorophenol	06/12/23	ND	ug/L	NO
Phorate	06/12/23	ND	ug/L	NO
Picloram	06/12/23	ND	ug/L	NO
Polychlorinated Biphenyls(PCB)	06/12/23	ND	ug/L	NO
Prometryne	06/12/23	ND	ug/L	NO
Simazine	06/12/23	ND	ug/L	NO
Terbufos	06/12/23	ND	ug/L	NO
Tetrachloroethylene	06/12/23	ND	ug/L	NO
2,3,4,6-Tetrachlorophenol	06/12/23	ND	ug/L	NO
Triallate	06/12/23	ND	ug/L	NO
Trichloroethylene	06/12/23	ND	ug/L	NO
2,4,6-Trichlorophenol	06/12/23	ND	ug/L	NO
Trifluralin	06/12/23	ND	ug/L	NO
Vinyl Chloride	06/12/23	ND	ug/L	NO

Dunn Road Well and Pumphouse

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	14/09/23	ND	ug/L	NO
Atrazine + N-dealkylated metabolites	14/09/23	ND	ug/L	NO
Atrazine	14/09/23	ND	ug/L	NO
Desethyl atrazine	14/09/23	ND	ug/L	NO

Azinphos-methyl	14/09/23	ND	ug/L	NO
Benzene	14/09/23	ND	ug/L	NO
Benzo(a)pyrene	14/09/23	ND	ug/L	NO
Bromoxynil	14/09/23	ND	ug/L	NO
Carbaryl	14/09/23	ND	ug/L	NO
Carbofuran	14/09/23	ND	ug/L	NO
Carbon Tetrachloride	14/09/23	ND	ug/L	NO
Chlorpyrifos	14/09/23	ND	ug/L	NO
Diazinon	14/09/23	ND	ug/L	NO
Dicamba	14/09/23	ND	ug/L	NO
1,2-Dichlorobenzene	14/09/23	ND	ug/L	NO
1,4-Dichlorobenzene	14/09/23	ND	ug/L	NO
1,2-Dichloroethane	14/09/23	ND	ug/L	NO
1,1-Dichloroethylene (vinylidene chloride)	14/09/23	ND	ug/L	NO
Dichloromethane	14/09/23	ND	ug/L	NO
2-4 Dichlorophenol	14/09/23	ND	ug/L	NO
2,4-Dichlorophenoxy acetic acid (2,4-D)	14/09/23	ND	ug/L	NO
Diclofop-methyl	14/09/23	ND	ug/L	NO
Dimethoate	14/09/23	ND	ug/L	NO
Diquat	14/09/23	ND	ug/L	NO
Diuron	14/09/23	ND	ug/L	NO
Glyphosate	14/09/23	ND	ug/L	NO
Malathion	14/09/23	ND	ug/L	NO
MCPA	14/09/23	ND	mg/L	NO
Metolachlor	14/09/23	ND	ug/L	NO
Metribuzin	14/09/23	ND	ug/L	NO
Monochlorobenzene	14/09/23	ND	ug/L	NO
Paraquat	14/09/23	ND	ug/L	NO
Pentachlorophenol	14/09/23	ND	ug/L	NO
Phorate	14/09/23	ND	ug/L	NO
Picloram	14/09/23	ND	ug/L	NO
Polychlorinated Biphenyls(PCB)	14/09/23	ND	ug/L	NO
Prometryne	14/09/23	ND	ug/L	NO
Simazine	14/09/23	ND	ug/L	NO
Terbufos	14/09/23	ND	ug/L	NO
Tetrachloroethylene	14/09/23	ND	ug/L	NO
2,3,4,6-Tetrachlorophenol	14/09/23	ND	ug/L	NO
Triallate	14/09/23	ND	ug/L	NO
Trichloroethylene	14/09/23	ND	ug/L	NO
2,4,6-Trichlorophenol	14/09/23	ND	ug/L	NO

Trifluralin	14/09/23	ND	ug/L	NO
Vinyl Chloride	14/09/23	ND	ug/L	NO

O'Loane Avenue Well and Pumphouse

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	14/09/23	ND	ug/L	NO
Atrazine + N-dealkylated metabolites	14/09/23	ND	ug/L	NO
Atrazine	14/09/23	ND	ug/L	NO
Desethyl atrazine	14/09/23	ND	ug/L	NO
Azinphos-methyl	14/09/23	ND	ug/L	NO
Benzene	14/09/23	ND	ug/L	NO
Benzo(a)pyrene	14/09/23	ND	ug/L	NO
Bromoxynil	14/09/23	ND	ug/L	NO
Carbaryl	14/09/23	ND	ug/L	NO
Carbofuran	14/09/23	ND	ug/L	NO
Carbon Tetrachloride	14/09/23	ND	ug/L	NO
Chlorpyrifos	14/09/23	ND	ug/L	NO
Diazinon	14/09/23	ND	ug/L	NO
Dicamba	14/09/23	ND	ug/L	NO
1,2-Dichlorobenzene	14/09/23	ND	ug/L	NO
1,4-Dichlorobenzene	14/09/23	ND	ug/L	NO
1,2-Dichloroethane	14/09/23	ND	ug/L	NO
1,1-Dichloroethylene (vinylidene chloride)	14/09/23	ND	ug/L	NO
Dichloromethane	14/09/23	ND	ug/L	NO
2-4 Dichlorophenol	14/09/23	ND	ug/L	NO
2,4-Dichlorophenoxy acetic acid (2,4-D)	14/09/23	ND	ug/L	NO
Diclofop-methyl	14/09/23	ND	ug/L	NO
Dimethoate	14/09/23	ND	ug/L	NO
Diquat	14/09/23	ND	ug/L	NO
Diuron	14/09/23	ND	ug/L	NO
Glyphosate	14/09/23	ND	ug/L	NO
Malathion	14/09/23	ND	ug/L	NO
MCPA	14/09/23	ND	mg/L	NO
Metolachlor	14/09/23	ND	ug/L	NO
Metribuzin	14/09/23	ND	ug/L	NO
Monochlorobenzene	14/09/23	ND	ug/L	NO
Paraquat	14/09/23	ND	ug/L	NO
Pentachlorophenol	14/09/23	ND	ug/L	NO
Phorate	14/09/23	ND	ug/L	NO

Picloram	14/09/23	ND	ug/L	NO
Polychlorinated Biphenyls(PCB)	14/09/23	ND	ug/L	NO
Prometryne	14/09/23	ND	ug/L	NO
Simazine	14/09/23	ND	ug/L	NO
Terbufos	14/09/23	ND	ug/L	NO
Tetrachloroethylene	14/09/23	ND	ug/L	NO
2,3,4,6-Tetrachlorophenol	14/09/23	ND	ug/L	NO
Triallate	14/09/23	ND	ug/L	NO
Trichloroethylene	14/09/23	ND	ug/L	NO
2,4,6-Trichlorophenol	14/09/23	ND	ug/L	NO
Trifluralin	14/09/23	ND	ug/L	NO
Vinyl Chloride	14/09/23	ND	ug/L	NO

Romeo Street Pumping Station

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	14/09/23	ND	ug/L	NO
Atrazine + N-dealkylated metabolites	14/09/23	ND	ug/L	NO
Atrazine	14/09/23	ND	ug/L	NO
Desethyl atrazine	14/09/23	ND	ug/L	NO
Azinphos-methyl	14/09/23	ND	ug/L	NO
Benzene	14/09/23	ND	ug/L	NO
Benzo(a)pyrene	14/09/23	ND	ug/L	NO
Bromoacetic Acid	14/09/23	ND	ug/L	NO
Bromdichloromethane	14/09/23	3.4	ug/L	NO
Bromoform	14/09/23	ND	ug/L	NO
Bromoxynil	14/09/23	ND	ug/L	NO
Carbaryl	14/09/23	ND	ug/L	NO
Carbofuran	14/09/23	ND	ug/L	NO
Carbon Tetrachloride	14/09/23	ND	ug/L	NO
Chloroacetic Acid	14/09/23	ND	ug/L	NO
Chloroform	14/09/23	16	ug/L	NO
Chlorpyrifos	14/09/23	ND	ug/L	NO
Diazinon	14/09/23	ND	ug/L	NO
Dibromoacetic Acid	14/09/23	ND	ug/L	NO
Dibromodichloromethane	14/09/23	0.60	ug/L	NO
Dicamba	14/09/23	ND	ug/L	NO
Dichloroacetic Acid	14/09/23	4.7	ug/L	NO
1,2-Dichlorobenzene	14/09/23	ND	ug/L	NO
1,4-Dichlorobenzene	14/09/23	ND	ug/L	NO
1,2-Dichloroethane	14/09/23	ND	ug/L	NO

1,1-Dichloroethylene (vinylidene chloride)	14/09/23	ND	ug/L	NO
Dichloromethane	14/09/23	ND	ug/L	NO
2-4 Dichlorophenol	14/09/23	ND	ug/L	NO
2,4-Dichlorophenoxy acetic acid (2,4-D)	14/09/23	ND	ug/L	NO
Diclofop-methyl	14/09/23	ND	ug/L	NO
Dimethoate	14/09/23	ND	ug/L	NO
Diquat	14/09/23	ND	ug/L	NO
Diuron	14/09/23	ND	ug/L	NO
Glyphosate	14/09/23	ND	ug/L	NO
Total Haloacetic Acid (HAA)	14/09/23	10.8	ug/L	NO
Total Haloacetic Acid (HAA)	14/09/23	10.5	ug/L	NO
Total Haloacetic Acid (HAA)	14/09/23	11.7	ug/L	NO
Total Haloacetic Acid (HAA)	14/09/23	11.2	ug/L	NO
Malathion	14/09/23	ND	ug/L	NO
MCPA	14/09/23	ND	mg/L	NO
Metolachlor	14/09/23	ND	ug/L	NO
Metribuzin	14/09/23	ND	ug/L	NO
Monochlorobenzene	14/09/23	ND	ug/L	NO
Paraquat	14/09/23	ND	ug/L	NO
Pentachlorophenol	14/09/23	ND	ug/L	NO
Phorate	14/09/23	ND	ug/L	NO
Picloram	14/09/23	ND	ug/L	NO
Polychlorinated Biphenyls(PCB)	14/09/23	ND	ug/L	NO
Prometryne	14/09/23	ND	ug/L	NO
Simazine	14/09/23	ND	ug/L	NO
THM (Total)	14/09/23	20	ug/L	NO
THM (Total)	14/09/23	20	ug/L	NO
THM (Total)	14/09/23	20	ug/L	NO
THM (Total)	14/09/23	19	ug/L	NO
Terbufos	14/09/23	ND	ug/L	NO
Tetrachloroethylene	14/09/23	ND	ug/L	NO
2,3,4,6-Tetrachlorophenol	14/09/23	ND	ug/L	NO
Triallate	14/09/23	ND	ug/L	NO
Trichloroacetic Acid	14/09/23	7.0	ug/L	NO
Trichloroethylene	14/09/23	ND	ug/L	NO
2,4,6-Trichlorophenol	14/09/23	ND	ug/L	NO

Trifluralin	14/09/23	ND	ug/L	NO
Vinyl Chloride	14/09/23	ND	ug/L	NO

Distribution System

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
HAA (Dufferin Towers)	08/03/23 OOS 2 nd Quarter 14/09/23 06/12/23	25.1 (Running Annual Average)	ug/L	NO
THM (Dufferin Towers)	08/03/23 OOS 2 nd Quarter 14/09/23 06/12/23	38.3 (Running Annual Average)	ug/L	NO

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
HAA (Forman Towers)	08/03/23 08/06/23 14/09/23 06/12/23	16.7 (Running Annual Average)	ug/L	NO
THM (Forman Towers)	08/03/23 08/06/23 14/09/23 06/12/23	19.6 (Running Annual Average)	ug/L	NO

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

Chestnut Street Well and Pumphouse

Parameter	Result Value	Unit of Measure	Date of Sample
Fluoride	2.28	mg/L	14/09/23

Mornington Street Well and Pumphouse

Parameter	Result Value	Unit of Measure	Date of Sample
Fluoride	1.98	mg/L	14/09/23

Lorne Avenue Well and Pumphouse

Parameter	Result Value	Unit of Measure	Date of Sample
Fluoride	2.34	mg/L	06/12/23

Dunn Road Well and Pumphouse

Parameter	Result Value	Unit of Measure	Date of Sample
Fluoride	1.76	mg/L	14/09/23

O'Loane Avenue Well and Pumphouse

Parameter	Result Value	Unit of Measure	Date of Sample
Fluoride	1.53	mg/L	14/09/23

Note: Fluoride is naturally occurring in Stratford's drinking water supply source. For more information visit the Perth District Health Unit website at: <http://www.pdhu.on.ca/health-topics/environment/water/fluoride-and-drinking-water/> Fluoride exceedances are reportable every 57 months. Next reportable exceedances will be in 2023.