GRAFTON DRINKING WATER SYSTEM 2024 ANNUAL REPORT

Drinking Water System Number:	**220009058**
Drinking Water System Name:	Grafton Drinking Water System
Drinking Water System Owner:	Corporation of the Township of Alnwick/Haldimand
Drinking Water System Category:	Large Municipal Residential
Period being reported:	January 1, 2024 to 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 [ ] No [x]

Is your annual report available to the public at no charge on a web site on the Internet? Yes [x] No [ ]

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

Lakefront Utility Services Inc.
Office
207 Division Street,
Cobourg, Ontario

https://www.lakefrontutilities.com/regulatory-water/

Complete for all other Categories

Number of Designated Facilities served:

Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [ ] No [ ]

Number of Interested Authorities you report to:

Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [ ] No [ ]

***Note*: For the following tables below, additional rows or columns may be added, or an appendix may be attached to the report**

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

Drinking Water System Name	Drinking Water System Number
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 drinking water? Yes [ ] No [ ]

Indicate how you notified system users that your 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_____

Describe your Drinking Water System

The Hamlet of Grafton Communal Water System supplies water to approximately 1000 residents. Water is taken from 2 wells located at the water plant on Edwardson Road. The water is disinfected with sodium hypochlorite and sodium silicate is added to sequester the iron as the water enters the plant. After the appropriate contact time, water is pumped to the distribution system with variable speed pumps, which modulate to maintain the distribution system pressure.

List all water treatment chemicals used over this reporting period

Sodium Hypochlorite
Sodium Silicate

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

PROJECT	ESTIMATED COST
New Well Construction	$103,328
Pumphouse Roof	$33,719
Chlorine Residual Analyzer Replacement	$10,444

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	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
There were no Adverse Water Quality Incidents during the reporting period					

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 Well 1	53	0-0	0-0	-	-
Raw Well 2	53	0-0	0-0	-	-
Treated	53	0-0	0-0	52	0 – 4
Distribution	159	0-0	0-0	106	0 - 21

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 Well 1 (Raw)	12	0.11-0.59	NTU
Turbidity Well 2 (Raw)	12	0.08-0.59	NTU
Turbidity (Treated)	12	0.11-0.27	NTU
Chlorine	8760	0.14 – 1.74	mg/L
Fluoride (If the DWS provides fluoridation)	NA		

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
No additional testing or sampling is required				

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	08-Jan-2024	0.6 < MDL	ug/L	No
Arsenic	08-Jan-2024	0.4	ug/L	No
Barium	08-Jan-2024	157	ug/L	No
Boron	08-Jan-2024	25	ug/L	No
Cadmium	08-Jan-2024	0.003 < MDL	ug/L	No
Chromium	08-Jan-2024	0.19	ug/L	No
Mercury	08-Jan-2024	0.01 < MDL	ug/L	No
Selenium	08-Jan-2024	0.04 < MDL	ug/L	No
Sodium	15-Apr-2024	17.6	mg/L	No
Uranium	08-Jan-2024	0.047	ug/L	No
Fluoride	15-Apr-2024	0.16	mg/L	No
Nitrite	15-Oct-2024	0.003 < MDL	mg/L	No
Nitrate	15-Oct-2024	0.022	mg/L	No

Summary of lead testing under Schedule 15.1 during this reporting period
(applicable to the following drinking water systems; large municipal residential systems, small municipal residential systems, and non-municipal year-round residential systems)

Location Type	Number of Samples	Range of Lead Results (min#) – (max #)	Unit of Measure	Number of Exceedances
Plumbing	Not required, plumbing exemption and only pH and Alkalinity required in distribution samples			
Distribution	4	Lead (0.01<MDL-0.05 ug/L), pH (7.08-7.64), Alkalinity (180-193 mg/L)		

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

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	08-Jan-2024	0.02<MDL	ug/L	No
Atrazine + N-dealkylated metabolites	08-Jan-2024	0.01<MDL	ug/L	No
Azinphos-methyl	08-Jan-2024	0.05<MDL	ug/L	No
Benzene	08-Jan-2024	0.32<MDL	ug/L	No
Benzo(a)pyrene	08-Jan-2024	0.004<MDL	ug/L	No
Bromoxynil	08-Jan-2024	0.33<MDL	ug/L	No
Carbaryl	08-Jan-2024	0.05<MDL	ug/L	No
Carbofuran	08-Jan-2024	0.01<MDL	ug/L	No
Carbon tetrachloride	08-Jan-2024	0.17<MDL	ug/L	No
Chlorpyrifos	08-Jan-2024	0.02<MDL	ug/L	No
Diazinon	08-Jan-2024	0.02<MDL	ug/L	No
Dicamba	08-Jan-2024	0.2<MDL	ug/L	No
1,2-Dichlorobenzene	08-Jan-2024	0.41<MDL	ug/L	No
1,4-Dichlorobenzene	08-Jan-2024	0.36<MDL	ug/L	No
1,2-Dichloroethane	08-Jan-2024	0.35<MDL	ug/L	No
1,1-Dichloroethylene (vinylidene chloride)	08-Jan-2024	0.33<MDL	ug/L	No
Dichloromethane	08-Jan-2024	0.35<MDL	ug/L	No
2,4-dichlorophenol	08-Jan-2024	0.15<MDL	ug/L	No
2,4-dichlorophenoxyacetic acid (2,4-D)	08-Jan-2024	0.19<MDL	ug/L	No
Diclofop-methyl	08-Jan-2024	0.4<MDL	ug/L	No
Dimethoate	08-Jan-2024	0.06<MDL	ug/L	No
Diquat	08-Jan-2024	1<MDL	ug/L	No
Diuron	08-Jan-2024	0.03<MDL	ug/L	No
Glyphosate	08-Jan-2024	1<MDL	ug/L	No
Malathion	08-Jan-2024	0.02<MDL	ug/L	No
MCPA	08-Jan-2024	0.00012<MDL	mg/L	No
Metolachlor	08-Jan-2024	0.01<MDL	ug/L	No
Metribuzin	08-Jan-2024	0.02<MDL	ug/L	No
Monochlorobenzene	08-Jan-2024	0.3<MDL	ug/L	No

Paraquat	08-Jan-2024	1<MDL	ug/L	No
Pentachlorophenol	08-Jan-2024	0.15<MDL	ug/L	No
Phorate	08-Jan-2024	0.01<MDL	ug/L	No
Picloram	08-Jan-2024	1<MDL	ug/L	No
Polychlorinated Biphenyls (PCBs) Total	08-Jan-2024	0.04<MDL	ug/L	No
Prometryne	08-Jan-2024	0.03<MDL	ug/L	No
Simazine	08-Jan-2024	0.01<MDL	ug/L	No
Terbufos	08-Jan-2024	0.01<MDL	ug/L	No
Tetrachloroethylene (perchloroethylene)	08-Jan-2024	0.35<MDL	ug/L	No
2,3,4,6-tetrachlorophenol	08-Jan-2024	0.2<MDL	ug/L	No
Triallate	08-Jan-2024	0.01<MDL	ug/L	No
Trichloroethylene	08-Jan-2024	0.44<MDL	ug/L	No
2,4,6-trichlorophenol	08-Jan-2024	0.25<MDL	ug/L	No
Trifluralin	08-Jan-2024	0.02<MDL	ug/L	No
Vinyl Chloride	08-Jan-2024	0.17<MDL	ug/L	No
HAAs (show latest running annual average**)**	15-Oct-2024	5.3<MDL	ug/L	No
THMs (show latest running annual average**)**	15-Oct-2024	23.0	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

Parameter	Result Value	Unit of Measure	Date of Sample
No parameters exceeded half the standard			