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

ANNUAL REPORT

Drinking-Water System Number:	**210000470**
Drinking-Water System Name:	Hastings Drinking Water System
Drinking-Water System Owner:	Municipality of Trent Hills
Municipal Drinking Water Licence	150-103
Drinking Water Works Permit	150-203
Drinking-Water System Category:	WT III, WD I
Period being reported:	January 1 to December 31, 2023

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.

Trent Hills Municipal Office
66 Front Street South,
Campbellford ON

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 of their drinking water from your system:

Drinking Water System Name	Drinking Water System Number
1. Hastings Drinking Water System **2.** Trentview Estates, Township of Asphodel-Norwood	1. 210000470 2. 260057278

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 [X] 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
[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 _____

Describe your Drinking-Water System

The Hastings water treatment plant is a conventional water treatment system, which draws all of its raw water supply from the Trent River. The treatment system consists of a low lift pumping station, two (2) solids contact up flow reactor-clarifiers, two (2) dual-media filters equipped with granular activated carbon for taste and odour control, a baffled contact tank connected to the filter discharge ensuring primary disinfection, a high lift pumping station equipped with secondary disinfection capabilities accomplished by a chlorine injection system located on the plant discharge. A corrosion inhibitor is injected into the plant discharge pipe for corrosion control in the distribution system.
A 530 cubic meter off-site storage standpipe provides peak hour demands and fire flow protection. The water distribution system is comprised of various water main materials of different sizes and a single pressure zone. The system supplies the Village of Hastings and the Trentview Estates water distribution system located in the Township of Asphodel-Norwood.

List all water treatment chemicals used over this reporting period

1. Poly Aluminum-chloride (SternPAC) - supplied by Kemira
2. Corrosion Inhibitor (ENV 24P10) - supplied by Environor Canada
3. Gaseous Chlorine – supplied by Brenntag Canada

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

- Park Street watermain replacement $ 385,774.28
- Second watermain river crossing $ 1,378,963.65
- Wellington Street watermain replacement $ 203,981.84
- Chlorinator replacement $ 27,342.95
- Treatment chemicals $ 48,500.34
- Equipment repairs $ 17,141.90

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
N/A					

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 Or Fecal Results (min #)-(max #)	Range of Total Coliform Results (min #)-(max #)	Number of HPC Samples	Range of HPC Results (min #)-(max #)
Raw	52	0 - 140	34 - 1780	0	N/A
Treated	52	0 - 0	0 - 0	52	0 - 16
Distribution	156	0-0	0-0	30	0 - 9

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	**8760**	**0.018-0.792 NTU**
Chlorine	**8760**	**0.52-2.80 mg/L**
Fluoride (If the DWS provides fluoridation)	**N/A**	**N/A**

***NOTE**: For continuous monitors use 8760 as the number of samples.*

***NOTE**: Record the unit of measure if it is **not** milligrams per litre.*

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
Municipal Drinking Water Licence, Issued June 25th, 2021.	**Total Suspended Solids**	**Samples collected monthly. Result = annual average concentration.**	**3.5**	**mg/L**

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	04/01/2023	0.6<MDL	Micrograms	0
Arsenic	04/01/2023	0.2<MDL	Micrograms	0
Barium	10/01/2022	29.1	Micrograms	0
Boron	10/01/2022	20	Micrograms	0
Cadmium	04/01/2023	0.010	Micrograms	0

Chromium	04/01/2023	0.18	Micrograms	0
***Lead**				
Mercury	04/01/2023	0.01<MDL	Micrograms	0
Selenium	04/01/2023	0.04<MDL	Micrograms	0
Sodium	04/01/2023	11.3	Milligrams	0
Uranium	10/01/2022	0.012	Micrograms	0
Fluoride	04/01/2023	0.06<MDL	Milligrams	0
Nitrite	21/11/2023	0.003<MDL	Milligrams	0
Nitrate	21/11/2023	0.056	Milligrams	0

*only for drinking water systems testing under Schedule 15.2; this includes large municipal non-residential systems, small municipal non-residential systems, non-municipal seasonal residential systems, large non-municipal non-residential systems, and small non-municipal non-residential systems

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 #)	Number of Exceedances
Plumbing	**N/A**	**N/A**	**N/A**
Distribution	**8**	**0.01 – 1.88**	**0**

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	04/01/2023	0.02<MDL	Micrograms	0
Atrazine + N-dealkylated metobolites	04/01/2023	0.01<MDL	Micrograms	0
Atrazine	04/01/2023	0.01<MDL	Micrograms	0
Desethyl atrazine	04/01/2023	0.01<MDL	Micrograms	0
Azinphos-methyl	04/01/2023	0.05<MDL	Micrograms	0
Benzene	04/01/2023	0.32<MDL	Micrograms	0
Benzo(a)pyrene	04/01/2023	0.004<MDL	Micrograms	0
Bromoxynil	04/01/2023	0.33<MDL	Micrograms	0
Carbaryl	04/01/2023	0.05<MDL	Micrograms	0
Carbofuran	04/01/2023	0.01<MDL	Micrograms	0
Carbon Tetrachloride	04/01/2023	0.17<MDL	Micrograms	0
Chlorpyrifos	04/01/2023	0.02<MDL	Micrograms	0
Diazinon	04/01/2023	0.02<MDL	Micrograms	0
Dicamba	04/01/2023	0.20<MDL	Micrograms	0
1,2-Dichlorobenzene	04/01/2023	0.41<MDL	Micrograms	0
1,4-Dichlorobenzene	04/01/2023	0.36<MDL	Micrograms	0
1,2-Dichloroethane	04/01/2023	0.35<MDL	Micrograms	0
1,1-Dichloroethylene(vinylidene chloride)	04/01/2023	0.33 <MDL	Micrograms	0
Dichloromethane	04/01/2023	0.35<MDL	Micrograms	0
2-4 Dichlorophenol	04/01/2023	0.15<MDL	Micrograms	0
2,4-Dichlorophenoxy acetic acid (2,4-D)	04/01/2023	0.19<MDL	Micrograms	0
Diclofop-methyl	04/01/2023	0.40<MDL	Micrograms	0
Dimethoate	04/01/2023	0.06<MDL	Micrograms	0
Diquat	04/01/2023	1<MDL	Micrograms	0
Diuron	04/01/2023	0.03<MDL	Micrograms	0

Glyphosate	04/01/2023	1<MDL	Micrograms	0
Malathion	04/01/2023	0.02<MDL	Micrograms	0
MCPA	04/01/2023	0.00012<MDL	Milligrams	0
Metolachlor	04/01/2023	0.01<MDL	Micrograms	0
Metribuzin	04/01/2023	0.02<MDL	Micrograms	0
Monochlorobenzene	04/01/2023	0.30<MDL	Micrograms	0
Paraquat	04/01/2023	1<MDL	Micrograms	0
Pentachlorophenol	04/01/2023	0.15<MDL	Micrograms	0
Phorate	04/01/2023	0.01<MDL	Micrograms	0
Picloram	04/01/2023	1<MDL	Micrograms	0
Polychlorinated Biphenyls(PCB)	04/01/2023	0.04<MDL	Micrograms	0
Prometryne	04/01/2023	0.03<MDL	Micrograms	0
Simazine	04/01/2023	0.01<MDL	Micrograms	0
THM (NOTE**:** show latest annual average**)**		90.25	Micrograms	0
Terbufos	04/01/2023	0.01<MDL	Micrograms	0
Tetrachloroethylene	04/01/2023	0.35<MDL	Micrograms	0
2,3,4,6-Tetrachlorophenol	04/01/2023	0.20<MDL	Micrograms	0
Triallate	04/01/2023	0.01<MDL	Micrograms	0
Trichloroethylene	04/01/2023	0.44<MDL	Micrograms	0
2,4,6-Trichlorophenol	04/01/2023	0.25<MDL	Micrograms	0
Trifluralin	04/01/2023	0.02<MDL	Micrograms	0
Vinyl Chloride	04/01/2023	0.17<MDL	Micrograms	0

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
Sodium	**11.3**	**mg/L**	**04/01/2023**
THM	**90.25**	**ug/L**	**RAA**