

OPTIONAL ANNUAL REPORT TEMPLATE

Drinking-Water System Number:	220001888
Drinking-Water System Name:	Minto Water Treatment Plant
Drinking-Water System Owner:	District Municipality of Muskoka
Drinking-Water System Category:	Large Municipal Residential
Period being reported:	January 01 to December 31, 2022

<p><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></p> <p>Does your Drinking-Water System serve more than 10,000 people? Yes [] No [X]</p> <p>Is your annual report available to the public at no charge on a web site on the Internet? Yes [X] No []</p> <p>Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</p> <div style="border: 1px solid black; padding: 5px;"> District Municipality of Muskoka 70 Pine Street Bracebridge, Ontario P1L 1N3 (705) 645-6764 www.muskoka.on.ca </div>	<p><u>Complete for all other Categories.</u></p> <p>Number of Designated Facilities served: <div style="border: 1px solid black; padding: 2px; width: 100px; text-align: center;">N/A</div> </p> <p>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes [] No []</p> <p>Number of Interested Authorities you report to: <div style="border: 1px solid black; padding: 2px; width: 100px; text-align: center;">N/A</div> </p> <p>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes [] No []</p>
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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

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 []

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

- Public access/notice via the web
- Public access/notice via Government Office
- 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 water treatment plant serving the community of Bala was constructed in 1994. The treatment process consists of chemically assisted coagulation-flocculation, sedimentation and filtration using multi-media filters with a combination of gravel, sand and anthracite coal. Disinfection in a post-treatment chlorine contact chamber is followed by final pH adjustment and fluoridation before the treated water is pumped to our customers. Our waterworks currently serves a population of approximately 1000 persons. The rated water production capacity of the plant is 1942 cubic meters per day. Our raw water source is Lake Muskoka and the intake is located two meters above the lakebed at a depth of 18 meters and about 500 meters from shore.

List all water treatment chemicals used over this reporting period

Sodium Hypochlorite, Polyaluminum Chloride, Sodium Hydroxide, Carbon Dioxide, Hydrated Lime, Potassium Permanganate, Fluoride.

Were any significant expenses incurred to?

- Install required equipment
- Repair required equipment
- Replace required equipment

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

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 – NDOGT*	0 - NDOGT	N.A.	N.A.
Treated	52	0 - 0	0 - 0	52	0 – 2
Distribution	168	0 - 0	0 - 0	118	0 - 6

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 #)	Geometric Mean Average
Turbidity	8760	0.02 - 0.22 NTU	0.05 NTU
Chlorine	8760	1.39 – 2.17 mg/l	1.75 mg/l
Fluoride (If the DWS provides fluoridation)	8760	0.26 - 0.71 mg/l	0.58 mg/l

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

NOTE: Record the unit of measure if it is **not** milligrams per litre.
MDL = Method Detection Limit

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.				

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	May 09/2022	0.6	µg/L	No
Arsenic	May 09/2022	0.2	µg/L	No
Barium	May 09/2022	11.3	µg/L	No
Boron	May 09/2022	5	µg/L	No
Cadmium	May 09/2022	0.012	µg/L	No
Chromium	May 09/2022	0.18	µg/L	No
*Lead			µg/L	No
Mercury	May 09/2022	0.01	µg/L	No
Selenium	May 09/2022	0.21	µg/L	No
Sodium	May 09/2022	10.4	mg/L	No
Uranium	May 09/2022	0.002	µg/L	No
Fluoride	May 09/2022	0.49	mg/L	No
Nitrite	Feb 14/2022	0.003	mg/L	No
Nitrate	Feb 14/2022	0.218	mg/L	No
Nitrite	May 09/2022	0.003	mg/L	No

Nitrate	May 09/2022	0.206	mg/L	No
Nitrite	Aug 08/2022	0.003	mg/L	No
Nitrate	Aug 08/2022	0.207	mg/L	No
Nitrite	Nov 07/2022	0.003	mg/L	No
Nitrate	Nov 07/2022	0.096	mg/L	No

*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 #)	Geometric Mean Average	Unit of Measure	Number of Exceedances
Plumbing	0	N.A.	N.A.	N.A.	N.A.
Distribution	4	0.02-0.06	0.04	µg/L	No

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	May 09/2022	0.02	µg/L	No
Atrazine+N-dealkylated Metabolites	May 09/2022	0.01	µg/L	No
Azinphos-methyl	May 09/2022	0.05	µg/L	No
Benzene	May 09/2022	0.32	µg/L	No
Benzo(a)pyrene	May 09/2022	0.004	µg/L	No
Bromoxynil	May 09/2022	0.33	µg/L	No
Carbaryl	May 09/2022	0.05	µg/L	No
Carbofuran	May 09/2022	0.01	µg/L	No
Carbon Tetrachloride	May 09/2022	0.17	µg/L	No
Chorpyrifos	May 09/2022	0.02	µg/L	No
Diazinon	May 09/2022	0.02	µg/L	No
Dicamba	May 09/2022	0.2	µg/L	No
1,2 Dichlorobenzene	May 09/2022	0.41	µg/L	No
1,4 Dichlorobenzene	May 09/2022	0.36	µg/L	No
1,2 Dichloroethane	May 09/2022	0.35	µg/L	No
1,1 Dichloroethylene	May 09/2022	0.33	µg/L	No
Dichloromethane	May 09/2022	0.35	µg/L	No
2,4 Dichlorophenol	May 09/2022	0.15	µg/L	No
2,4-D	May 09/2022	0.19	µg/L	No
Diclofop-Methyl	May 09/2022	0.4	µg/L	No
Dimethoate	May 09/2022	0.06	µg/L	No
Diquat	May 09/2022	1	µg/L	No
Diuron	May 09/2022	0.03	µg/L	No
Glyphosate	May 09/2022	1	µg/L	No
Malathion	May 09/2022	0.02	µg/L	No

MCPA	May 09/2022	0.00012	µg/L	No
Metolachor	May 09/2022	0.01	µg/L	No
Metribuzin	May 09/2022	0.02	µg/L	No
Monochlorobenzene	May 09/2022	0.3	µg/L	No
Paraquat	May 09/2022	1	µg/L	No
Pentachlorophenol	May 09/2022	0.15	µg/L	No
Phorate	May 09/2022	0.01	µg/L	No
Picloram	May 09/2022	1	µg/L	No
PCB	May 09/2022	0.04	µg/L	No
Prometryne	May 09/2022	0.03	µg/L	No
Simazine	May 09/2022	0.01	µg/L	No
THM (NOTE: Annual average of 4 samples – Distribution system)	Feb 14/2022- Nov 07/2022	76.5	µg/L	No
HAA (NOTE: Annual average of 4 samples – Distribution system)	Feb 14/2022- Nov 07/2022	73.85	µg/L	No
Terbufos	May 09/2022	0.01	µg/L	No
Tetrachloroethylene	May 09/2022	0.35	µg/L	No
2,3,4,6 - Tetrachlorophenol	May 09/2022	0.20	µg/L	No
Triallate	May 09/2022	0.01	µg/L	No
Trichloroethylene	May 09/2022	0.44	µg/L	No
2,4,6,- Trichlorophenol	May 09/2022	0.25	µg/L	No
Trifluralin	May 09/2022	0.02	µg/L	No
Vinyl Chloride	May 09/2022	0.17	µg/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
THM	72	µg/L	Feb 14/2022
THM	53	µg/L	May 09/2022
THM	97	µg/L	Aug 08/2022
THM	84	µg/L	Nov 07/2022
HAA	66.4	µg/L	Feb 14/2022
HAA	50.6	µg/L	May 09/2022
HAA	77.4	µg/L	Aug 08/2022
HAA	101	µg/L	Nov 07/2022