

OPTIONAL ANNUAL REPORT TEMPLATE

Drinking-Water System Number:	260001669
Drinking-Water System Name:	Lone Pine Water Treatment Plant – Port Severn
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 Port Severn was constructed in 1997. The treatment process consists of chemically assisted coagulation-flocculation, sedimentation and filtration using dual-media filters with a combination of sand and anthracite coal. Disinfection in a post-treatment chlorine contact chamber is followed by fluoridation and final pH adjustment before the treated water is pumped to our customers. Our waterworks currently serves a population of approximately 500 persons. The rated water production capacity of the plant is 1900 cubic meters per day. Our raw water source is Little Lake and the intake is located two meters above the lakebed at a depth of 4.5 meters and about 255 meters from shore.

List all water treatment chemicals used over this reporting period

Sodium Hypochlorite, Aluminum Sulphate, Sodium Hydroxide, 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

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	58	0 – 10	0 – 160	N/A	N/A
Treated	53	0 – 0	0 – 0	53	0 - 3
Distribution	157	0 - 0	0 - 0	111	0 - 139

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	0.03 – 0.35 NTU	0.10 NTU
Chlorine	8760	1.41 – 2.02 mg/l	1.39 mg/l
Fluoride (If the DWS provides fluoridation)	8760	0.04 – 0.70 mg/l	0.53 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
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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 08/2022	0.6	µg/L	No
Arsenic	May 08/2022	0.2	µg/L	No
Barium	May 08/2022	18.8	µg/L	No
Boron	May 08/2022	9	µg/L	No
Cadmium	May 08/2022	0.02	µg/L	No
Chromium	May 08/2022	0.23	µg/L	No
*Lead	May 08/2022		µg/L	No
Mercury	May 08/2022	0.01	µg/L	No
Selenium	May 08/2022	0.1	µg/L	No
Sodium	May 08/2022	19.3	mg/L	No
Uranium	May 08/2022	0.004	µg/L	No
Fluoride	May 08/2022	0.43	mg/L	No
Nitrite	Feb 09/2022	0.003	mg/L	No

Nitrate	Feb 09/2022	0.087	mg/L	No
Nitrite	May 08/2022	0.003	mg/L	No
Nitrate	May 08/2022	0.109	mg/L	No
Nitrite	Aug 08/2022	0.003	mg/L	No
Nitrate	Aug 08/2022	0.037	mg/L	No
Nitrite	Nov 07/2022	0.003	mg/L	No
Nitrate	Nov 07/2022	0.022	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.	µg/L	N.A.
Distribution	4	0.03 – 0.09	0.06	µg/L	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	May 08/2022	0.02	µg/L	No
Atrazine+N-dealkylated Metabolites	May 08/2022	0.01	µg/L	No
Azinphos-methyl	May 08/2022	0.05	µg/L	No
Benzene	May 08/2022	0.32	µg/L	No
Benzo(a)pyrene	May 08/2022	0.004	µg/L	No
Bromoxynil	May 08/2022	0.33	µg/L	No
Carbaryl	May 08/2022	0.05	µg/L	No
Carbofuran	May 08/2022	0.01	µg/L	No
Carbon Tetrachloride	May 08/2022	0.17	µg/L	No
Chorpyrifos	May 08/2022	0.02	µg/L	No
Diazinon	May 08/2022	0.02	µg/L	No
Dicamba	May 08/2022	0.2	µg/L	No
1,2 Dichlorobenzene	May 08/2022	0.41	µg/L	No
1,4 Dichlorobenzene	May 08/2022	0.36	µg/L	No
1,2 Dichloroethane	May 08/2022	0.35	µg/L	No
1,1 Dichloroethylene	May 08/2022	0.33	µg/L	No
Dichloromethane	May 08/2022	0.35	µg/L	No
2,4 Dichlorophenol	May 08/2022	0.15	µg/L	No
2,4-D	May 08/2022	0.19	µg/L	No

Diclofop-Methyl	May 08/2022	0.4	µg/L	No
Dimethoate	May 08/2022	0.06	µg/L	No
Diquat	May 08/2022	1	µg/L	No
Diuron	May 08/2022	0.03	µg/L	No
Glyphosate	May 08/2022	1	µg/L	No
Malathion	May 08/2022	0.02	µg/L	No
MCPA	May 08/2022	0.00012	µg/L	No
Metolachor	May 08/2022	0.01	µg/L	No
Metribuzin	May 08/2022	0.02	µg/L	No
Monochlorobenzene	May 08/2022	0.3	µg/L	No
Paraquat	May 08/2022	1	µg/L	No
Pentachlorophenol	May 08/2022	0.15	µg/L	No
Phorate	May 08/2022	0.01	µg/L	No
Picloram	May 08/2022	1	µg/L	No
PCB	May 08/2022	0.04	µg/L	No
Prometryne	May 08/2022	0.03	µg/L	No
Simazine	May 08/2022	0.01	µg/L	No
THM (NOTE: Annual average of 4 samples – Distribution system)	Feb 09/2022 - Nov 09/2022	60	µg/L	No
HAA (NOTE: Annual average of 4 samples – Distribution system)	Feb 09/2022 - Nov 09/2022	54	µg/L	No
Terbufos	May 08/2022	0.01	µg/L	No
Tetrachloroethylene	May 08/2022	0.35	µg/L	No
2,3,4,6 - Tetrachlorophenol	May 08/2022	0.2	µg/L	No
Triallate	May 08/2022	0.01	µg/L	No
Trichloroethylene	May 08/2022	0.44	µg/L	No
2,4,6,- Trichlorophenol	May 08/2022	0.25	µg/L	No
Trifluralin	May 08/2022	0.02	µg/L	No
Vinyl Chloride	May 08/2022	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	66	µg/L	Feb 09/2022
THM	72	µg/L	Aug 08/2022
THM	57	µg/L	Nov 09/2022
HAA	67	µg/L	Feb 09/2022
HAA	68	µg/L	Aug 08/2022
HAA	51	µg/L	Nov 09/2022